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This quarterly publication announces the availability of instructional materials acquired and processed by the Educational Resources Information Center (ERIC) Clearinghouse on Vocational and Technical Education. It should be of particular interest to teachers, curriculum specialists, supervisors, and administrators involved in curriculum development or the use of instructional materials in the teaching-learning setting. Each abstract, a condensation of the report in about 200 words, usually includes the means used to develop the material, the setting for use of the material, and source of available copies. Abstracts are included under the following sections: agricultural, business and office, distributive, health occupations, home economics, industrial arts, trade and industrial general vocational and technical education, and other resources. An author index, document number index, and subject indexes are provided. Most of the documents which have not been announced in "Research in Education" are available as a separate microfiche set from the ERIC Document Reproduction Service (VT 007 238). Others are available from the source identified in the abstract. (EL)

**ABSTRACTS OF
INSTRUCTIONAL
MATERIALS IN
VOCATIONAL
AND
TECHNICAL
EDUCATION**

FALL 1968

ERIC CLEARINGHOUSE
THE CENTER FOR VOCATIONAL
AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY
COLUMBUS, OHIO

ED023936

VIC07437

The Center for Vocational and Technical Education has been established as an independent unit on The Ohio State University campus with a grant from the Division of Adult and Vocational Research, U. S. Office of Education. It serves a catalytic role in establishing a consortium to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach, and interinstitutional in its program.

The major objectives of The Center follow:

1. To provide continuing reappraisal of the role and function of vocational and technical education in our democratic society;
2. To stimulate and strengthen state, regional, and national programs of applied research and development directed toward the solution of pressing problems in vocational and technical education;
3. To encourage the development of research to improve vocational and technical education in institutions of higher education and other appropriate settings;
4. To conduct research studies directed toward the development of new knowledge and new applications of existing knowledge in vocational and technical education;
5. To upgrade vocational education leadership (state supervisors, teacher educators, research specialists, and others) through an advanced study and in-service education program;
6. TO PROVIDE A NATIONAL INFORMATION RETRIEVAL, STORAGE, AND DISSEMINATION SYSTEM FOR VOCATIONAL AND TECHNICAL EDUCATION LINKED WITH THE EDUCATIONAL RESEARCH INFORMATION CENTER LOCATED IN THE U. S. OFFICE OF EDUCATION.

Abstracts of
Instructional Materials
in
Vocational and Technical Education
FALL 1968
U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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ERIC Clearinghouse
The Center for Vocational and Technical Education
The Ohio State University
1900 Kenny Road, Columbus, Ohio 43212

ED023936

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PREFACE

Abstracts of Instructional Materials in Vocational and Technical Education (AIM) and the companion publication Abstracts of Research and Related Materials in Vocational and Technical Education (ARM) announce the availability of documents acquired and processed by the ERIC Clearinghouse on Vocational and Technical Education. AIM includes abstracts of materials typically designed for teacher use or student use in the classroom, and annotations of bibliographies or lists of instructional materials. It will be of particular interest to teachers, curriculum specialists, supervisors and administrators involved in the use of instructional materials in the teaching-learning setting, or in curriculum development. ARM incorporates abstracts of research and other materials which are useful to a wide audience of users such as researchers, supervisors, teacher educators, education specialists, administrators, teachers and others who have an interest in vocational and technical education. These publications prepared by the ERIC Clearinghouse on Vocational and Technical Education are published quarterly beginning with the Fall 1967 issue.

The ERIC Clearinghouse on Vocational and Technical Education is a division of the Center for Research and Leadership Development in Vocational and Technical Education located at The Ohio State University and is one of the clearinghouses of the Educational Resources Information Center (ERIC-USOE). With the growth of vocational education programs, there is an increasing need for accessible information that can be used in developing logical chains of reasoning for research activities, for improving school practices and shortening the theory-practice gap. This Clearinghouse is striving to provide a useful and vital function in dissemination of information on vocational and technical education through these publications.

Since this Clearinghouse is a component of a larger information system, ERIC, it is logical that certain similarities among publications exist. In this regard the format of AIM and ARM is similar to that of Research in Education (RIE)¹, the primary publication of the Educational Resources Information Center (ERIC). RIE includes abstracts from all ERIC Clearinghouses. The abstracts of materials reported in AIM relate specifically to the educational field of vocational and technical education and constitute a segment of ERIC, the national information system for American education.

In addition to the quarterly publications, Abstracts of Instructional Materials in Vocational and Technical Education (AIM) and Abstracts of Research and Related Materials in Vocational and Technical Education (ARM), other publications will be issued from time to time. These will typically concern themselves with reviewing and synthesizing information in specific areas of vocational and technical education, e.g., Review and Synthesis of Research in Technical Education; Agricultural Education; Home Economics, etc. Other reviews may focus on specific problems.

We are indebted to our colleagues within the profession for their cooperation in forwarding materials to the clearinghouse and for their suggestions and comments which have materially assisted in the development of this program. We anticipate further refinement and improved procedures with the continued assistance of our advisory committee.

Robert E. Taylor
Director

¹Research in Education is published 12 times a year. The first issue was no. 1, November 1966. Subscription: Domestic, \$11.00 a year; foreign, \$2.75 additional. Single copy: Domestic, \$1.00. Send check or money order (no stamps) to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. A price increase effective January 1, 1969 will be: Domestic, \$21.00 a year; foreign, \$5.25 additional; single copies \$1.75.

INTRODUCTION

Organization of ABSTRACTS OF INSTRUCTIONAL MATERIALS IN VOCATIONAL AND TECHNICAL EDUCATION

Abstracts of Instructional Materials in Vocational and Technical Education relies upon two basic formats -- resumes and indexes -- to serve the browser and those seeking specific information. The resumes are organized according to vocational service groupings in the first section of the document. Under each grouping, the resumes are arranged by Vocational Technical (VT) number which is an identification number assigned to reports as they are processed. Resumes contain an abstract which indicates the contents of a document in two hundred words or less. Additional components of a resume are explained in a diagram on page ix immediately preceding the resume section.

Several indexes are located after the resume section to provide specific approaches to documents reported in the resume section. These indexes are:

Personal and Institutional Authors Index

Document Number Index

Conversion of Document Number (VT to ED or MP, ED or MP to VT)

Subject Index

All of the indexes refer to page numbers in this publication to enable the reader to quickly locate any resume of interest.

Availability of AIM

AIM is published quarterly (Fall, Winter, Spring, Summer). The first issue began Fall 1967. At this time the four issues for the period Fall 1967 - Summer 1968 are available only on microfiche or facsimile copy. These may be ordered from ERIC Document Reproduction Service, The National Cash Register Company, 4936 Fairmont Avenue, Bethesda, Maryland 20014, using the following information.

ED 013 337	Fall 1967 AIM	MF - \$.75	or	HC - \$7.48
ED 015 336	Winter 1967 AIM	MF - \$.75	or	HC - \$7.88
ED 017 745	Spring 1968 AIM	MF - \$.75	or	HC - \$7.96
ED 020 441	Summer 1968 AIM	MF - \$.75	or	HC - \$7.04

Please add a special handling charge of 50 cents to any order which totals less than \$3. Payment must accompany orders totaling less than \$5. Orders from states with sales tax laws must include payment of appropriate tax or include exemption certificates. A 25-percent service charge, calculated to the nearest cent, must accompany orders from outside the United States, its territories, and possessions.

Subscriptions for hard copy may be initiated with the Fall 1968 issue, or subsequent issues. Send order indicating quarter and year that subscription is to begin to:

Publications Clerk
The Center for Vocational and Technical Education
1900 Kenny Road
Columbus, Ohio 43212

Availability of Materials Reported in AIM

A basic concept of the ERIC system is to make known the availability of the full text of materials abstracted. Most of the materials processed into the ERIC system with an ERIC Document (ED) number will be available from the ERIC Document Reproduction Service (EDRS) in the form of microfiche or facsimile copy. There is an EDRS availability line with each abstract which indicates if a document may be obtained from EDRS. If a document is not available from EDRS it is available from a source cited at the end of the abstract. Microfiche or facsimile copy must be ordered by ED (ERIC Document) number since EDRS is not set up to respond to requests for materials by subject. AIM and ARM indexes can be used to determine ED numbers which relate to problem areas.

Documents which are a part of the VT-ERIC collection and are not announced in Research in Education are included in ARM and AIM. A VT number only is supplied on the resume. Documents which can be microfiche are grouped in VT number sequence as a microfiche set for each issue of AIM and ARM. Each set is announced in RIE under a single ED number. The Fall 1967 - Summer 1968 Microfiche Collections contain local clearinghouse VT documents and ED documents. Beginning with Fall 1968, the microfiche set will contain only clearinghouse documents. These sets may be ordered from EDRS. Information to be used in ordering the sets for AIM follows:

AIM Microfiche Collections

<u>AIM</u>	<u>ED Number</u>	<u>Microfiche</u>
Fall 1967	ED 013 339	\$22.25
Winter 1967	ED 015 349	\$40.25
Spring 1968	ED 017 746	\$54.00
Summer 1968	ED 020 442	\$53.00

It should be noted that organizations which have standing orders with EDRS for all VT-ERIC microfiche in RIE, or for the total microfiche collections in RIE will automatically receive the AIM and ARM microfiche collection.

Availability Key for Materials Reported in AIM

<u>Accession Number</u>	<u>Availability on Microfiche</u>
ED number supplied	ERIC Document Reproduction Service (EDRS) provided the information is shown on EDRS price line.
ED appears without a number	If a price is given for microfiche, the fiche is unavailable from EDRS (at time of printing) until an ED number is assigned and published in RIE. The issue of RIE in which the abstract is scheduled to appear follows the ED prefix. After assignment of numbers has been made by Central ERIC, the Conversion of Document Number Index in each succeeding issue of AIM will include numbers for documents listed with an ED and RIE date in the previous issue.
VT number only supplied	Available on microfiche in VT-ERIC set from EDRS as indicated.
Items not available through EDRS or in a VT-ERIC set will usually have a source of availability at the end of the abstract. When possible, this information is also provided for items available through EDRS.	

ERIC Document Reproduction Service (EDRS)

The ERIC Document Reproduction Service (EDRS) is operated by The National Cash Register Company. To save time, request order forms from:

EDRS

The National Cash Register Company
4936 Fairmont Avenue
Bethesda, Maryland 20014

The Prices for microfiche changed January 1, 1968. The price for Standing Orders (all ERIC Documents) was reduced to 8.4¢ per fiche and was increased to 25¢ per fiche for individual titles.

To compute the cost of individual microfiche announced prior to January 1, 1968 use the following table:

IF PREVIOUSLY PUBLISHED (MF) PRICE WAS	USE THIS NEW PRICE	IF PREVIOUSLY PUBLISHED (MF) PRICE WAS	USE THIS NEW PRICE
\$.09-----	\$.25	\$.54 -----	\$1.50
.18-----	.50	.63 -----	1.75
.27-----	.75	.72 -----	2.00
.36-----	1.00	.81 -----	2.25
.45-----	1.25	.90 -----	2.50

Microfiche cost of documents announced in this issue are based on the new price schedule.

Scope of the Clearinghouse

The ERIC Clearinghouse on Vocational and Technical Education is responsible for research reports and other documents related to the general field of vocational and technical education. Included are reports on the specific fields of agricultural education, business and office occupations education, distributive education, health occupations education, home economics education, technical education, trade and industrial education, training in new subprofessional fields, and the related fields of industrial arts education, manpower economics, occupational psychology, and occupational sociology. Specifically included are subject categories such as administration, curriculum development, employment opportunities, evaluation, facilities and equipment, historical studies, individuals with special needs, innovative and experimental programs, instructional materials and devices, learning processes, manpower economics, occupations (jobs), philosophy and objectives, research methods, student personnel services, students (characteristics), teachers, and teacher education and teaching methods when related specifically to vocational and technical education.

Acquisitions

The adequacy of information in this publication, as well as other services of this clearinghouse, is directly related to the extensiveness of the information acquired and processed into the system. This Clearinghouse has assumed the initiative in obtaining as much of the available information as possible. However, it is impossible for any organization to achieve complete and comprehensive coverage of a field as vast as vocational education without the cooperation and assistance of the profession. The growth and ultimate effectiveness of the system require supplemental efforts of its users. Any person in the vocational or technical field is invited to forward to the Clearinghouse two copies of items relating to vocational-technical education for possible inclusion in the system. Questions relating to this endeavor should be directed to the Acquisitions Specialist at the Center.

Abbreviations

AIM	<u>Abstracts of Instructional Materials in Vocational and Technical Education</u>
ARM	<u>Abstracts of Research and Related Materials in Vocational and Technical Education</u>
ED	ERIC Document
EDRS	ERIC Document Reproduction Service
ERIC	Educational Resources Information Center
HC	Hard copy
MF	Microfiche
RIE	<u>Research in Education</u>
VT	Vocational-Technical

SAMPLE RESUME

Accession Number--
an identification
number sequentially
assigned to reports
as they are processed.

Author(s)--the
individual(s) who
prepared the
report.

Publication Date--
the date the
report was pub-
lished.

EDRS Price--price
of the document
through the ERIC
Document Repro-
duction Service.
"MF" means micro-
fiche; "HC" means
hardcopy.

Identifier--
acronyms, geo-
graphical areas,
organizations,
tests (e.g. Binet),
etc.

Abstract--a condensation
of the report in about
200 words. When appli-
cable, it includes the
purpose, procedure, re-
sults, and conclusions
of the research activity.

Abstractor's Initials.

VT 003 124 ED 013 335

The Curriculum for a Model Business Education Program.

Jurist, Rodney G.

New Jersey State Dep of Educ, Trenton, Div of Vocat Educ.

Rutgers State Univ., New Brunswick, N.J. Curriculum Lab.

Pub Date - Jun 67

EDRS PRICE MF-\$0.75 HC-NOT AVAILABLE FROM EDRS 168p.

*CURRICULUM, *BUSINESS EDUCATION, HIGH SCHOOLS, QUESTIONNAIRES,
DISTRIBUTIVE EDUCATION, PROGRAM PLANNING, CURRICULUM PLANNING,
*DEMONSTRATION PROGRAMS, COOPERATIVE EDUCATION, GUIDELINES, SLOW
LEARNERS, SMALL SCHOOLS, COLLEGES, INSTRUCTOR COORDINATORS,

New Jersey,

The purpose of this study was to establish a 4-year business and
distributive education curriculum to serve as a guide for
implementing and improving programs in the State. The material was
developed by State business education supervisors and trial tested
among business education coordinators and teachers and in seminars.
Based on 26 statements of criteria for a curriculum in a model
business education program, subject sequences for high schools with
and without out-of-school work programs were developed. Work
experience programs, exploratory and career programs, and programs
for small high schools, the slow learners, and college students are
described. Sample questionnaires for use in planning programs, and
report forms are included. This document is available for \$1.50
from Vocational-Technical Curriculum Laboratory, Rutgers
University, 10 Seminary Place, New Brunswick, New Jersey 08903.
(PS)

If ED is followed by
numbers, item cited
has been announced
in Research in Edu-
cation. If ED is not
followed by numbers,
the issue of RIE in
which the abstract is
scheduled to appear
follows the ED prefix.

Title of Report.

Institutional Source--
the organization re-
sponsible for the re-
port.

Total number of
printed pages in the
document, including
cover and appendices.

Descriptors--the
subject terms as-
signed by an in-
dexer to charac-
terize the contents
of a report. Only
the major terms,
those preceded by
an asterisk, are
printed in the
index.

Source of Availability.

Availability Key for Materials Reported in AIM

Accession Number	Availability on Microfiche
ED number supplied	ERIC Document Reproduction Service (EDRS) pro- vided the information is shown on EDRS price line.
ED appears without a number	If a price is given for microfiche, the fiche is unavailable from EDRS (at time of printing) until an ED number is assigned and published in RIE. The issue of RIE in which the abstract is scheduled to appear follows the ED prefix. After assignment of numbers has been made by Central ERIC, the Con- version of Document Number Index in each succeeding issue of AIM will include numbers for documents listed with an ED and RIE date in the previous issue.
VT number only supplied	Available on microfiche in VT-ERIC set from EDRS as indicated.
Items not available through EDRS or in a VT-ERIC set will usually have a source of availability for items available through EDRS.	

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AGRICULTURAL
EDUCATION
SECTION

VT 000 522

The Application of Selected Business Principles to Farming Program Record Keeping (A Resource Unit for Teachers and Students). Teacher Education Research Series, Volume 6, Number 1.

Steffy, Robert E.

Pennsylvania State Univ., University Park. Dept of Agr Ed.

Pub Date - 65

MF AVAILABLE IN VT-ERIC SET. 93p.

*TEXTBOOKS, REFERENCE MATERIALS, *VOCATIONAL AGRICULTURE, *FARMERS, *RECORDKEEPING, *FARM MANAGEMENT, BUSINESS SKILLS, FARM ACCOUNTS, HIGH SCHOOLS, GRADE 9,

Information needed in applying selected business principles to farm record keeping and business management is presented in this document for use by vocational agriculture students and teachers as reference or text materials. It was developed by a vocational agriculture teacher, pretested in 10 Indiana County schools, and revised. Major units are (1) Developing Personal Characteristics, (2) Types of Business Organizations, (3) General Instructions in Record Keeping, (4) The Requirements of a Legal Contract, (5) The Farming Program Financial Estimate or Budget, (6) Salesmanship and Marketing, (7) Calculating the Expense of Depreciation, (8) Summarizing the Record Book, (9) The Business Principles Involved in the Financial Statement, (10) The Commercial Bank as a Source of Credit, (11) Advantages and Disadvantages of Installment Buying, and (12) Sharing Economic Loss Through Insurance. Objectives, procedures, references, and teaching aids are recommended for each unit. Agriculture teachers may use this material with ninth grade students who have interest and occupational objectives in production agriculture. The appendixes include a farming program financial estimate, farm insurance policies, a financial statement, reference material, and instructional aids. This document is available for 50 cents from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 582

Farm Field Mapping--Soil, Water and Fertility Management, A Resource Unit for Adult Education Classes.

Stevens, G.Z. * and others

Pennsylvania State Univ., University Park. Coll. of Agr.

Teacher Education Ser-4-No-9.

Pennsylvania Young Farmers' Association.

Pennsylvania Assn of Soil and Water Conserv Dist Dir, Inc

Pub Date - 63

MF AVAILABLE IN VT-ERIC SET. 17p.

*RESOURCE UNITS, LESSON PLANS, *TEACHING GUIDES, UNITS OF STUDY (SUBJECT FIELDS), *VOCATIONAL AGRICULTURE, FERTILIZERS, SOIL CONSERVATION, MAPS, *FARM MANAGEMENT, WATER RESOURCES, *ADULT FARMER EDUCATION,

Technical information needed for farm field mapping, soil and water conservation, and field fertility management is presented in this course outline for use by vocational agriculture teachers in planning adult farmer classes. It was developed by teacher educators, subject-matter specialists, and a committee of teachers.

The lessons are (1) Making Maps of Individual Farms, (2) Learning the Major Soil Types, (3) Becoming Acquainted with the Soils, (4) Appraising the Capabilities of the Soils, (5) Appreciating and Using Conservation Practices, (6) Planning Water Management Systems, (7) Establishing Conservation Practices, (8) Maintaining Erosion Control Practices, (9) Making and Understanding Soil Tests, (10) Understanding Fertility and Water Requirements of Specific Crops, (11) Recognizing and Managing Limiting Factors in Fertility Management, and (12) Recording and Using Individual Field Data. Each contains stated purposes, planning procedures, and suggested activities. The suggested time allotment is 12 class sessions. Teachers with a background in production agriculture may use this material with adult farmers who have interest and occupational need for instruction in this area of farm management. References and illustrations are included. (WB)

VT 000 594

Agriculture Films for Vocational Agriculture Classes.

Ash, James

West Virginia Univ., Morgantown. Dept of Agricultural Educ

Pub Date - May 63

MF AVAILABLE IN VT-ERIC SET. 42p.

*FILMS, *ANNOTATED BIBLIOGRAPHIES, *VOCATIONAL AGRICULTURE,

Films useful to vocational agriculture teachers are listed in this latest revision of a series started in 1948. The 122 films are organized under 28 categories--agricultural economics, farm buildings and structures, farm electricity, farm power and machinery, farm shop, soil and water management, animal husbandry, dairy, poultry, sheep, swine, livestock marketing, animal diseases and parasites, corn, hay crops, pastures, potatoes, silage, small grains, weeds, forage insect and disease control, fertilizers, forestry, farm safety, careers, Future Farmers of America, and general and contributory. Each film is briefly described by title, subject matter, length, type, rating, points covered, source, and cost. (JM)

VT 000 618

Using the School Greenhouse, A School-Year Unit to Teach Environmental Principles of Plant Science Through Production of Crops of Chrysanthemums, Daffodils, and Vegetable Transplants. Teacher Education Series, Volume 4, Number 4.

Drawbaugh, Charles C.

Pennsylvania State Univ., University Park. Coll. of Agr.

Pub Date - 63

MF AVAILABLE IN VT-ERIC SET. 73p.

*TEXTBOOKS, REFERENCE MATERIALS, *VOCATIONAL AGRICULTURE, *PLANT SCIENCE, *GREENHOUSES, ORNAMENTAL HORTICULTURE, PLANT GROWTH, HIGH SCHOOLS,

Technical information needed in the experimentation with and production of chrysanthemums, daffodils, and vegetable transplants is presented in this course of study for high school student use as text or reference material. It was developed by an individual

author, tested by a group of teachers, and revised. Major sections are (1) Principles of Growing Greenhouse Chrysanthemums, (2) Principles of Forcing Pot Daffodils, and (3) Principles of Producing Quality Vegetable Transplants. A time schedule, materials needed, procedure, and key questions are included for each section. The suggested time allotment is 1 school year. Ornamental horticulture teachers may use this material with students enrolled in greenhouse production. A list of references is included. This document is available for \$1.00 from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 797

Beef Marketing, A Student Handbook. Teacher Education Series, Volume 6, Number 5.

Daugherty, R. Gene * and others
 Pennsylvania State Univ., University Park. Dept of Agr Ed.
 Pennsylvania State Dept. of Public Instruction, Harrisburg
 Pennsylvania Young Farmers Association
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 69p.

*TEXTBOOKS, *VOCATIONAL AGRICULTURE, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS), *LIVESTOCK, *MARKETING, HIGH SCHOOLS, ADULT FARMER EDUCATION,

Technical information needed in beef cattle marketing is presented in this handbook for use by high school students and adults as text or reference material. It was developed by an individual author with assistance from teacher educators, subject-matter specialists, and vocational agriculture teachers. Major problem areas are (1) Where to Market which includes terminal markets, auction markets, at-the-farm markets, marketing cooperatives, federal laws regulating livestock markets, and livestock market selection, (2) When to Buy which includes market, outlook, and general information, (3) What to Buy which includes nature of markets, time available to finish cattle, and initial cost of cattle, and (4) When to Sell which includes factors affecting decision to sell, and transit shrinkage of cattle. Teachers with a background in production agriculture may use this material with students who have interest and occupational objectives in the marketing phase of the beef cattle industry. Beef marketing data are presented in pictorial and graphic form. The appendix lists beef cattle trade terms and definitions. Necessary supplemental material is "Beef Marketing, A Teacher's Unit Plan" (VT 000 798). This document is available for \$1.00 from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 798

Beef Marketing, A Teacher's Unit Plan. Teacher Education Series, Volume 6, Number 4.

Daugherty, R. Gene * and others
 Pennsylvania State Univ., University Park. Dept of Agr Ed.

Pennsylvania State Dept. of Public Instruction, Harrisburg
 Pennsylvania Young Farmer Association.
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 26p.

*TEACHING GUIDES, UNITS OF STUDY (SUBJECT FIELDS), *VOCATIONAL AGRICULTURE, *LIVESTOCK, *MARKETING, ADULT FARMER EDUCATION, HIGH SCHOOLS,

For use by vocational agriculture teachers in lesson planning, this guide was developed by a vocational agriculture teacher and a teacher educator and pilot tested in the Lancaster County, Pennsylvania, schools. Major problem areas are (1) Where to Market, (2) When to Buy, (3) What to Buy, and (4) When to Sell. Each contains introductory information, student learning objectives, advance teacher preparation, and student learning activities. Teachers with competencies in production agriculture may use this material with advanced high school and adult students with occupational objectives in the marketing phase of the beef cattle industry. References, audiovisual aids, a beef marketing examination, and examination answers are included. Necessary supplemental material is "Beef Marketing, A Student Handbook" (VT 000 797). This document is available for 40 cents from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 799

Dairy Cattle Nutrition, A Teacher's Unit Plan.

Brown, William J. * Love, Gene M.
 Pennsylvania State Univ, University Park. Dept of Agr Ed
 Teacher Education Ser-6-No-2.
 Pennsylvania Young Farmers Association.
 Pennsylvania State Dep of Public Instruction, Harrisburg
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 45p.

*TEACHING GUIDES, *VOCATIONAL AGRICULTURE, *CATTLE, *NUTRITION, HIGH SCHOOLS, ADULT FARMER EDUCATION,

Technical information needed in dairy cattle nutrition is presented for use by vocational agriculture teachers as text or reference material in lesson planning. It was developed by teacher educators with the assistance of subject-matter specialists and field tested by vocational agriculture teachers. The units are (1) Classifying Feeds, (2) Understanding Digestion and Feed Utilization, (3) Evaluating Forages and Formulating Feed Rations, and (4) Feeding Dairy Cattle. The current situation, objectives, teacher preparation, student learning activities, references, and instructional aids are recommended for each unit. Teachers with a background in agriculture production may use this material with 11th and 12th grade high school students and adult farmers who have occupational objectives in dairying. A dairy cattle nutrition examination, answer sheet, and suggested list of teaching-learning resources are included. A necessary supplemental medium is "Dairy Cattle Nutrition--A Student Handbook" available as VT 000 802. This document is available for 40 cents from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 800Quality Milk Production, A Teacher's Unit Plan.

Love, Gene M. * and others
 Pennsylvania State Univ, University Park. Dept of Agr Ed
 Teacher Education Ser-6-No-1.
 Pennsylvania Young Farmers Association.
 Pennsylvania Guernsey Breeders Association.
 Pub Date - 64
 MF AVAILABLE IN VT-ERIC SET. 25p.

*TEACHING GUIDES, *VOCATIONAL AGRICULTURE, UNITS OF STUDY (SUBJECT FIELDS), *MILK, FARM MANAGEMENT, HIGH SCHOOLS, ADULT FARMER EDUCATION,

Information needed in the production of quality milk is presented in this handbook for use by vocational agriculture teachers with high school or adult classes. It was prepared by teacher educators with the technical assistance of subject-matter specialists and vocational agriculture teachers. "Problem area" units are (1) milk secretion, (2) milk quality tests, (3) equipment sanitation, (4) milking management, (5) herd health, and (6) dairy farm facility management. Each unit includes a discussion of the current community situation, student learning objectives, advance teacher preparation, and student learning activities. A 10-item quiz, a 60-minute examination, and answer sheets are included. Publications, instructional aids, equipment, and resource people are suggested. This document is available for 40 cents from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 802Dairy Cattle Nutrition, A Student Handbook.

Brown, William J., Jr. * Love, Gene M.
 Pennsylvania Young Farmers Association.
 Pennsylvania State Dept of Public Instruction, Harrisburg
 Pennsylvania State Univ, University Park. Dept of Agr Ed
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 70p.

*TEXTBOOKS, REFERENCE MATERIALS, *VOCATIONAL AGRICULTURE, HIGH SCHOOLS, *NUTRITION, *CATTLE, ADULT FARMER EDUCATION,

Technical information needed in dairy cattle nutrition is presented in this handbook for use by high school vocational agriculture students and adults as text or reference material. It was developed by teacher educators with the assistance of subject-matter specialists and field tested by vocational agriculture teachers. Major units are (1) Classifying Feeds, (2) Understanding Digestion and Feed Utilization, (3) Evaluating Forages and Formulating Feed Rations, and (4) Feeding Dairy Cattle. The time allotment is variable depending on local needs and objectives. Teachers with a background in production agriculture may use this material with students who have occupational objectives in dairy production. Photographs, line drawings, charts, and tables illustrate the material. A necessary supplemental publication is "Dairy Cattle Nutrition--A Teacher's Unit Plan" (VT 000 799). This document is

available for \$1.00 from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 858

Principles of Farm Tractor Selection, Operation, General Maintenance and Storage for Vocational Agriculture.

Bristol, Benton K.

Pennsylvania State Univ, University Park. Dept of Agr Ed Teacher Education Ser-8-No-1.

Pub Date - 61

MF AVAILABLE IN VT-ERIC SET. 48p.

TEXTBOOKS, *REFERENCE MATERIALS, *VOCATIONAL AGRICULTURE, *TRACTORS, HIGH SCHOOLS,

Information on farm tractor selection, operation, general maintenance, and storage is presented in outline form for use by high school students and vocational agriculture teachers as a reference handbook. It was developed by a teacher educator in cooperation with subject-matter specialists. The sections are (1) Selecting a Tractor, (2) Safe Tractor Operation, (3) General Maintenance and Adjustments, and (4) Storage. Vocational agriculture teachers may use this guide with production-oriented agricultural students in the proper management of tractor power. Problems, illustrations, and a list of references are included. This document is available for 50 cents from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 000 930

Basic Principles of Plant Science, A Reference Unit for Teaching Basic Principles of Plant Science in Vocational Agriculture Courses in Florida.

Northrop, Floyd L.

Florida State Dept of Educ, Tallahassee. Agr Educ Sect.

FSDE-AES-Bull-72F-4

Pub Date - Jan66

MF AVAILABLE IN VT-ERIC SET. 85p.

*VOCATIONAL AGRICULTURE, *REFERENCE BOOKS, UNITS OF STUDY (SUBJECT FIELDS), *PLANT SCIENCE, HIGH SCHOOLS,

Adapted from a Mississippi publication, this guide was designed for use for a 6-week period in basic vocational agriculture classes as a reference unit for the teacher. Its objective is to organize plant science into basic principles. The units cover (1) classification of agricultural plants, (2) functions of plant parts, (3) reproduction, (4) plant growth, (5) nutrition, (6) diseases, (7) insects, and (8) weeds. Basic principles are presented in the form of questions followed by explanations. Tables and illustrations are included. (JM)

VT 000 931

Basic Principles of Animal Science, A Reference Unit for Teaching
Basic Principles of Animal Science in Vocational Agriculture Courses
in Florida.

Howell, W.B., Jr.

Florida State Dept of Educ, Tallahassee. Agr Educ Sect.

FSDE-AES-Bull-72F-S

Pub Date - Jan66

MF AVAILABLE IN VT-ERIC SET. 45p.

*VOCATIONAL AGRICULTURE, *REFERENCE BOOKS, UNITS OF STUDY (SUBJECT
FIELDS), *ANIMAL SCIENCE, HIGH SCHOOLS,

An adaptation of a Mississippi publication, this reference material is designed for use in basic vocational agriculture courses. Its main objective is to organize animal science into principles. One unit, The Anatomy and Physiology of Farm Animals, covers the skeletal, muscular, nervous, circulatory, respiratory, excretory, digestive, sensory, and reproductive systems. Other units cover nutrition, environment, diseases, and parasites. Basic principles are presented in the form of questions followed by explanations. Tables and illustrations are included. The material may be used by vocational agriculture teachers to plan a 6-week unit. (JM)

VT 000 963

Safety Practices in Agricultural Education.

Rogers, Clarence J.

Florida State Dept of Educ, Tallahassee. Agr Educ Sect.

FSDE-AES-72F-6.

Pub Date - May66

MF AVAILABLE IN VT-ERIC SET. 60p.

*VOCATIONAL AGRICULTURE, *AGRICULTURAL ENGINEERING, MANUALS,
LABORATORY SAFETY, *SAFETY EDUCATION, HIGH SCHOOLS, *AGRICULTURAL
SAFETY,

The purpose of this manual is to help vocational agriculture teachers set up or implement a safety program. The importance of safety is presented and the teacher's and supervisor's responsibilities are explained. Recommendations are made for general safety, first aid, electrical safety, and fire safety. Additional sections cover legal responsibilities and color coding in the farm shop. A bibliography is included. A list of specific safety recommendations for each category of tools or procedures is presented in sections on--(1) Hand Tools, (2) Power Tools, (3) Welding, (4) Miscellaneous Power Equipment, (5) Farm Tractors and Machinery, and (6) Agricultural Chemicals. The appendix shows a safety regulations form for student and parent signature, a safety engineer's daily report form, a safety survey checklist, and a national standard safety inspection checklist for vocational agriculture. (JM)

VT 001 262

Agricultural Courses for Area Vocational-Technical Schools.

Pennsylvania State Univ, University Park. Dept of Agr Ed.
 Pennsylvania State Dept of Public Instruction, Harrisburg
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 16p.

*CURRICULUM GUIDES, CURRICULUM, *VOCATIONAL AGRICULTURE, HIGH
 SCHOOLS, *AREA VOCATIONAL SCHOOLS,

Information needed in planning agricultural courses for area and vocational-technical schools for use by agricultural teachers and school administrators is presented. It was developed by a committee of supervisors and teacher educators. Course outlines, and unit time allotments for grades 10, 11, and 12 are given for the (1) specialized courses Landscape Horticulture and Agricultural Machinery and Equipment Sales and Service and for the (2) diversified courses Agricultural Business and Production Agriculture. Agriculture teachers may use this material with students enrolled in off-farm agricultural occupations and production agriculture courses offered by area technical school agricultural programs. A facilities layout and equipment list are included. (WB)

VT 001 370

Farm Mechanics Plans for Vocational Agriculture--Cattle, Hogs, Sheep. Teacher Education Series Volume 4 Number 2.

Bristol, Benton K.
 Pennsylvania State Univ., University Park. Dept of Agr Ed
 Pub Date - 63
 MF AVAILABLE IN VT-ERIC SET. 25p.

*STUDENT PROJECTS, *VOCATIONAL AGRICULTURE, *EQUIPMENT, HIGH
 SCHOOLS, CONSTRUCTION (PROCESS), *LIVESTOCK,

Construction plans for selected equipment needed in cattle, hog, and sheep production are presented for use by high school students in building livestock projects in agricultural mechanics. The plans were selected from a variety of sources by a committee of agriculture teachers, agricultural engineers, and teacher educators. Plans are included for a (1) green feeding wagon rack, hay drying wagon, hay feed rack, portable feed bunks, self-feeding hay wagon, silage and grain feeding trough, silage feeding wagon rack, and wagon unloading device for cattle, (2) self feeder, waterer, and V-troughs for hogs, and (3) combination lamb brooder and ewe feeder for 12 sheep, and hay feed rack and self feeder for sheep. Each gives detailed drawings with dimensions, and some include a materials list. Vocational agriculture teachers may use this material with agriculture students who have occupational objectives in production agriculture and are enrolled in agricultural mechanics courses. This document is available for 50 cents from Department of Agricultural Education, 101 Agricultural Education Building, Pennsylvania State University, University Park, Pennsylvania 16802. (WB)

VT 001 589

ED 018 594

Teacher's Guide for the Effective Use of "Records of Supervised Occupational Experience and Training in Vocational Agriculture".

Martin, W. Howard * and others

Pub Date - 64

EDRS PRICE MF-\$0.25 HC-\$0.56 12p.

*VOCATIONAL AGRICULTURE, *COOPERATIVE EDUCATION, *WORK EXPERIENCE,
*RECORDKEEPING, *TEACHING GUIDES,

A national committee of teachers, teacher educators, and supervisors developed this teacher's guide to the "Records of Supervised Occupational Experience and Training in Vocational Agriculture" (VT 001 592). The features, students, principles, and procedures of the experience program are discussed. Specific directions and sample entries for using the record book and a sample form of a teacher's record of students on placement are provided. Both this document and VT 001 592 are available for 50 cents each from French-Bray Printing Company, Candler Building, Baltimore, Maryland 21202. Discounts on quantity orders are available. (JM)

VT 001 590

Guide for Using the Vocational Agriculture Record Book for Production Agriculture.

Duncan, A.O.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 34p.

*VOCATIONAL AGRICULTURE, SUPERVISED FARM PRACTICE, *TEACHING GUIDES, *FARM ACCOUNTS, *RECORDKEEPING,

This guide illustrates the use, explains selected features, and provides general assistance in the use of "The Vocational Agriculture Record Book for Production Agriculture" (VT 001 591), developed in 1965 by a national committee. It is designed for use by teachers in preparing for and teaching record keeping and analysis or by high school students in studying simple accounting, and learning record keeping procedures and record analysis. "A Background for Farm Accounting and Record Keeping" discusses the importance of records, kinds and systems of records, and meanings of terms. "Illustration of Records Keeping and Analysis" reproduces a completed record book, explains the entries and procedures used, and shows variations which may be made for different students. "Evaluating Success in a Farming Program" explains procedures for calculating selected kinds of farm returns from records including net cash, net cash income, net farm income, labor income, returns per hour of labor, returns to capital and management, and costs and returns from each enterprise. The guide provides sections which are useful for both simple and advanced supervised farming programs. Copies are available for 25 cents, plus postage, (minimum order four copies) from French-Bray Printing Company, Candler Building, Baltimore, Maryland 21202. (JM)

VT 001 591 ED 018 595

Vocational Agriculture Record Book for Production Agriculture.

Pub Date - 66

EDRS PRICE MF-\$0.25 HC-\$1.40 33p.

*VOCATIONAL AGRICULTURE, *RECORDKEEPING, *FARM ACCOUNTS, RECORDS (FORMS), *SUPERVISED FARM PRACTICE,

Forms are provided for recording financial information about supervised farm program enterprises by individual vocational agriculture students. The book is designed on an enterprise basis and provides space for agreements, inventories, expenses, income, summaries, and analyses. Assistance for teachers using this record book is available in "Guide for Using the Vocational Agriculture Record Book for Production Agriculture" (VT 001 590). This document is available for five copies for 50 cents (minimum order) plus postage, from French-Bray Printing Company, Candler Building, Baltimore, Maryland 21202. (JM)

VT 001 592 ED 018 596
 Records of Supervised Occupational Experience and Training in Vocational Agriculture.

Burcroff, Walter * and others
 Pub Date - 64
 EDRS PRICE MF-\$0.25 HC-\$0.80 18p.

*VOCATIONAL AGRICULTURE, *WORK EXPERIENCE, COOPERATIVE EDUCATION, *RECORDKEEPING, *RECORDS (FORMS),

High school vocational agriculture students may keep records of their supervised occupational experience in this record book. Developed by a national committee of teachers, supervisors, and teacher educators, it provides space for recording essential plans, placement agreements, monthly work experiences, financial summaries, activities, and conferences. A teacher's guide is also available (VT 001 589). Both this document and the teacher's guide are available for 50 cents each from The French-Bray Printing Company, Candler Building, Baltimore, Maryland 21202. Quantity discounts are available. (JM)

VT 001 752 ED 018 607
 Developing Curriculum Materials for Cooperative Experience Programs in Agriculture, Agricultural Occupations Institute 1966 Workshop Report (June 6-July 15, 1966).

Oklahoma State Univ., Stillwater. Res. Foundation
 Pub Date - 66
 EDRS PRICE MF-\$1.00 HC-\$10.32 256p.

*COOPERATIVE EDUCATION, HIGH SCHOOLS, *VOCATIONAL AGRICULTURE, *CURRICULUM GUIDES, TESTS, AGRICULTURAL SUPPLY OCCUPATIONS, *OFF FARM AGRICULTURAL OCCUPATIONS, AGRICULTURAL MACHINERY OCCUPATIONS, ORNAMENTAL HORTICULTURE OCCUPATION, BIBLIOGRAPHIES, CURRICULUM, MARKETING, *TEACHING GUIDES, DISTRIBUTIVE EDUCATION,

Thirty vocational agriculture teachers from 11 states developed these curriculum materials for a 2-year high school cooperative experience program for occupations in agricultural sales and service, agricultural machinery, and horticulture. A rationale for curriculum development, an explanation of the curriculum, and an explanation of the cooperative experience program are presented. The major areas of the curriculum are (1) orientation and human

relations, (2) sales and service, (3) records and control, (4) the buying process, (5) organization and management, (6) career opportunities in agricultural business, (7) agricultural sales and service, (8) agricultural machinery, and (9) horticulture. Each unit within an area contains objectives and suggested teaching time, teaching techniques, order of presentation, references, and evaluation methods. Suggested projects for directly related materials, an outline of a public relations program, and a list of public relations tools developed by Institute members are included. (JM)

VT 001 852

Seed Production of Some Common Field Crops.

Fridline, Clarence R.
Ohio State Dept. of Educ., Columbus. Vocat. Agr. Service
Ohio State Univ., Columbus. Dept. of Agr. Education.
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 69p.

*VOCATIONAL AGRICULTURE, *TEXTBOOKS, HIGH SCHOOLS, *FIELD CROPS,

The purpose of this unit, which is for use as a student reference, is to provide assistance and direction in the study of seed production for major grain crops in Ohio which include corn, soybeans, wheat, oats, and barley. It was developed by a teacher after class trial and consultation with agronomists, teachers, and seed association representatives. The unit objectives are to develop appreciation and understanding of the importance of seeds, losses caused by poor quality seed, crop variety development, certified seed production, Ohio seed laws, and economical purchase of seeds. The materials would be appropriate for students in high schools and area vocational schools who are planning to be crop farmers. The suggested time allotment is 10 hours. Review problems, teaching aids, and references are listed. This document is available for \$1.75 from Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (JM)

VT 001 871

Greenhouse Plant Production, A Guide for Teachers of Vocational Agriculture. Department of Horticulture Report No. 66-2.

Lindstrom, Richard S. * and others
Michigan State Univ., East Lansing
Pub Date - Jan67
MF AVAILABLE IN VT-ERIC SET. 37p.

*TEACHING GUIDES, *GREENHOUSES, *ORNAMENTAL HORTICULTURE, *PLANT GROWTH, STUDENT PROJECTS, *VOCATIONAL AGRICULTURE, HIGH SCHOOLS, POST SECONDARY EDUCATION,

This guide for vocational agriculture teachers using greenhouse projects for instructional purposes in junior and senior high and post-high school programs aims to develop (1) favorable student attitudes toward greenhouse operations, (2) understandings and abilities to control environmental conditions in the greenhouse, use chemicals appropriately, and keep records and write reports of

greenhouse production, and (3) understanding of the organization and operation of the greenhouse as a unit and of the interrelationship of the factors of production. The content includes questions and answers about general greenhouse practices, general crop culture, cool greenhouse operation, warm greenhouse operation, and greenhouse suppliers. The teacher should have had a course in basic plant growth principles and students a course in biology. Teaching suggestions, fertilizer analyses and recommended application rates, and a bibliography are included. (JM)

VT 001 903

Basic Social and Educational Competencies Essential for Initial and Continued Employment in Agricultural Occupations.

Jacks, L.P.

Louisiana State Dep of Educ, Baton Rouge. Voc Educ Div.

Louisiana St. Univ., Baton Rouge. Sch. of Voc. Educ.

Vo. Ag. Ed-13.

Pub Date - Aug66

MF AVAILABLE IN VT-ERIC SET. 71p.

REFERENCE BOOKS, *TEXTBOOKS, *EDUCATIONAL NEEDS, EMPLOYMENT QUALIFICATIONS, JOB APPLICATION, *AGRICULTURAL OCCUPATIONS, JOB SKILLS, *VOCATIONAL AGRICULTURE, HIGH SCHOOLS,

Social and educational competencies needed in agricultural occupations are presented in this reference developed by a graduate student for high school students. The units are (1) Personal Qualities and Job Success which discusses nonphysical qualities such as enthusiasm, honesty, and dependability, and physical qualities such as voice and speech, poise and grooming, and tact and courtesy, (2) Basic Educational Competencies and Job Success which considers English and mathematics competencies, and knowledge of the free enterprise system, (3) Job Requirements which discusses working conditions, employment certificates, professional organizations, unions, licenses, laws, and benefits, and (4) Job Procurement which outlines appropriate job procurement procedures. The material was designed for student reading over a period of 12 hours. A bibliography of related material and a sample application blank are included. (JM)

VT 001 951

Facts on Farming in Ohio, Selected County and State Information for Teachers of Vocational Agriculture.

Ohio State Univ., Columbus. Dept. of Agr. Education

Ohio State Dept. of Educ., Columbus. Vocat. Agr. Service

Pub Date - May66

MF AVAILABLE IN VT-ERIC SET 30p.

*VOCATIONAL AGRICULTURE, *AGRICULTURAL TRENDS, HORTICULTURE, LAND USE, FARMERS, LIVESTOCK, *AGRICULTURAL PRODUCTION, AGRICULTURAL MACHINERY, INCOME, INDIVIDUAL CHARACTERISTICS, AGRICULTURAL SUPPLIES,
Crawford County, Ohio,

Data from the 1964 U.S. Census of Agriculture, "1964 Ohio Farm Income," and "Ohio Labor Market Information" are used in this

illustrated document designed to assist Ohio vocational agriculture teachers to understand changes in farming in their communities. The importance of the agricultural industry in the State and in Crawford County is presented. Additional information for Crawford County includes (1) farm number, size, type, land utilization, income sources, expenditures, product sales, (2) operator characteristics and nonfarm income, (3) livestock production, (4) crop acreage, (5) horticultural production, (6) farm mechanization, and (7) agricultural chemicals utilization. Data are presented in each section in tabular and graphic form to show status, comparisons, and trends. (JM)

VT 003 248

Principles of Judging Light Horses (3rd Edition).

Rousek, Edwin J.

Pub Date - 65

MF AVAILABLE IN VT-ERIC SET. 36p.

*HORSES, *TEXTBOOKS, REFERENCE BOOKS, *VOCATIONAL AGRICULTURE, UNITS OF STUDY (SUBJECT FIELDS), HIGH SCHOOLS, POST SECONDARY EDUCATION,

This study guide on horse judging was developed and refined by an animal science professor during 10 years of use in college classes. Included are sections on light horse judging, faults, defects in action, unsoundness, parts, teeth, circulatory system, muscles, internal organs, the nervous system, common diseases, guide for giving oral reasons, terms of criticism, and score cards. The modern concept of judging light horses is explained in logical steps to help a beginning student become a proficient horse judge. The guide for giving oral reason will help the student develop the ability to think and speak effectively in a contest situation. Students should be 14 years of age or older and interested in horses. The suggested time allotment is 9 hours. The text is illustrated with line drawings. This document is available for \$1.50 from Fresno State College Bookstore, Fresno State College, Fresno, California 93726. (WB)

VT 003 282 ED 018 622

Electrification Programs and Materials for Vocational Agriculture, Technical Occupations, and Trade and Industry Teaching Programs and for 4-H Electric Clubs.

Krewatch, A.V.

Farm Electrification Council, Oakbrook, Ill.

Pub Date - 67

EDRS PRICE MF-\$0.50 HC-\$4.04 99p.

*BIBLIOGRAPHIES, *ELECTRICITY, *VOCATIONAL AGRICULTURE, YOUTH CLUBS, TEXTBOOKS, REFERENCE MATERIALS, *INSTRUCTIONAL MATERIALS, *TRADE AND INDUSTRIAL EDUCATION, TECHNICAL EDUCATION,

Technical information, teaching guides, demonstration guides, textbooks, handbooks, bulletins, circulars, charts, slides, and films are included in the 613 items of electric and electrification teaching materials assembled and edited by subject-matter

specialists, educators, and staff members of the Farm Electrification Council. The materials are organized into sections: (1) vocational agriculture, (2) vocational-technical and trade and industry, (3) 4-H Club in which items are arranged by states, (4) visual aids, and (5) textbooks, handbooks, and publications. Each section has a cross reference list. The title, related information, educational level, size, date published, when available, source, contents, and comments for each listing are given. This document is available for \$1.00 to members and \$1.50 to nonmembers from Farm Electrification Council, Box 1008, Oakbrook, Illinois 60523. (WB)

VT 003 560

Analyzing Farm Records to Increase Farm Income. Adult-Farmer Course 4.

Kentucky Univ., Lexington. Dept. of Agricultural Educ.

Pub Date - 63

MF AVAILABLE IN VT-ERIC SET. 25p.

*TEACHING GUIDES, REFERENCE MATERIALS, *VOCATIONAL AGRICULTURE, *FARM MANAGEMENT, *RECORDKEEPING, FARM ACCOUNTS, ADULT FARMER EDUCATION,

Financial and managerial information needed by agricultural teachers as reference material in teaching farm management to adult farmer classes is presented. The material was prepared by an individual teacher educator. Major topics are (1) The Financial Summary, (2) Farm Income Statement, (3) Understanding the Results of the Year's Business, (4) Use of Comparisons in Analyzing the Farm Business, (5) Another Look at the Factors Affecting Farm Income, (6) An Exercise in Farm Management, (7) Finding Your Farm Business Leaks, (8) Other Measures of Performance, (9) Changes to Make in the Farm Business, and (10) Determining Farm and Family Goals. Suggestions for motivating class members, teacher references, and examples of figuring analysis factors are included. This document is available for \$1.00 from the Department of Agricultural Education, College of Education, University of Kentucky, Lexington, Kentucky 40506. (WB)

VT 003 899

Landscape Horticulture for Pre-Employment Laboratory Training in Vocational Agriculture, A Handbook for Teachers.

Texas Education Agency, Austin.

Texas A and M Univ., College Station.

Pub Date - 67

MF AVAILABLE IN VT-ERIC SET. 45p.

*LESSON PLANS, *TEACHING GUIDES, REFERENCE MATERIALS, *VOCATIONAL AGRICULTURE, *ORNAMENTAL HORTICULTURE OCCUPATION, *ORNAMENTAL HORTICULTURE, GRADE 11, GRADE 12, BIBLIOGRAPHIES, *LANDSCAPING,

Lesson plans for preemployment laboratory training in landscape horticulture are presented for use by high school vocational agriculture students and teachers in ornamental horticulture. They were designed by a subject-matter specialist and a committee of

vocational agriculture teachers during a 3-week training program. The plans are (1) Plant Growth Characteristics, (2) Growth Habits and Stem Characteristics, (3) Definitions, Terms, and Methods of Classification, (4) Leaf Characteristics, (5) Fruit Characteristics, (6) Morphological Terminology and Flower Characteristics, (7) Characteristics of Soil or pH Reactions, (8) Maintenance Problems with Horticulture Plants. Each plan contains objectives, materials, general information, procedures, references, and, in most cases, line drawing illustrations. Vocational agriculture teachers may use this material with 11th and 12th grade students who have an interest and occupational objectives in landscape horticulture. A list of references for general, regional, occupational, landscaping, greenhouse, and propagation information is included. This document is available for 60 cents from Agricultural Teaching Materials Center, Texas Agricultural and Mechanical University, College Station, Texas 77843. (WB)

VT 004 516

Farm Business Management, A Short Course in Management Technology for Farm Managers.

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - May64

MF AVAILABLE IN VT-ERIC SET. 11p.

ADULT VOCATIONAL EDUCATION, *CURRICULUM GUIDES, *FARMERS, *AGRICULTURAL EDUCATION, *TEACHING GUIDES, *FARM MANAGEMENT,

This guide is for teacher use in planning a community college or technical institute course in management technology for farm managers. It was developed in a curriculum laboratory and evaluated by community college instructors. The course objective is to aid farm managers and others in evaluating, preventing, and relieving agricultural management problems. Content of the document includes an overview of farm management, factors of production, management of seven different enterprises, and general considerations. College graduates in agricultural economics may use this 72-hour outline in developing a course for adults as part of a cluster in agricultural and biological education. The document contains a student survey form and a reference list. (DM)

VT 004 603

Small Gasoline Engines, A Short Course Instructional Guide.

Howell, Ezra L.

North Carolina State Bd of Educ, Raleigh. Vocat Tech Div.

Pub Date - Feb63

MF AVAILABLE IN VT-ERIC SET. 44p.

*TEACHING GUIDES, *ADULT VOCATIONAL EDUCATION, *CURRICULUM GUIDES, AGRICULTURAL EDUCATION, *FARM MECHANICS (OCCUPATION), *ENGINES, AGRICULTURAL ENGINEERING,

This guide is for teacher use in planning a community college or technical institute course for adults in small gasoline engine mechanics. It was developed by a professor of agricultural engineering and evaluated by instructors in community colleges.

The course objective is to teach the "why and how" of gasoline engine operations. Major topics are (1) terminology and nomenclature, (2) internal combustion engine fundamentals, (3) small engine service manual, (4) carburetion in carburetors, (5) ignition systems, (6) governors and cooling systems, (7) engine tear down, inspection and repair, (8) engine overhaul, (9) starters, generators, and cranking units, (10) trouble shooting, and (11) dealer service operations. This 40-hour course should be taught by a small gasoline engine mechanic. A small engines directory and reference list are included as supplementary materials. (DM)

VT 004 826

Poultry Feeding and Management, A Short Course in Poultry Technology.

Dawson, C.G.

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - May64

MF AVAILABLE IN VT-ERIC SET. 10p.

*TEACHING GUIDES, *POULTRY, ADULT VOCATIONAL EDUCATION,
*CURRICULUM GUIDES, *AGRICULTURAL EDUCATION, NUTRITION, FARM
MANAGEMENT, *AGRICULTURAL PRODUCTION,

This guide is for teacher use in planning a community college or technical institute course for adults in poultry feeding and management. It was developed by a specialist in poultry science and evaluated by instructors in community colleges. Content objectives are to develop (1) an understanding of the importance of proper nutrition, (2) an understanding of the components in a poultry diet, (3) the ability to properly select poultry feeds, and (4) an understanding of management practices related to feeding. Units are (1) Poultry Nutrition, (2) Ration Composition and Formulation, (3) Poultry Feeds, (4) Feeding Systems and Practices, (5) Health Feeding, (6) Feeding and Management of Young Chickens, (7) Feeding and Management for Egg Production, (8) Feeding and Management of Breeders, and (9) Fattening or Finishing of Poultry. This 30-hour course should be taught by an agricultural college graduate in poultry science as part of an occupational cluster in agricultural and biological education. The recommended text and references for the course are listed. (DM)

VT 004 827

Tobacco Grading and Marketing.

Cash, James A., Jr.

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - May65

MF AVAILABLE IN VT-ERIC SET. 18p.

*TEACHING GUIDES, *MARKETING, *TOBACCO, ADULT VOCATIONAL EDUCATION,
*CURRICULUM GUIDES, *AGRICULTURAL EDUCATION,

This guide is for teacher use in planning a community college or technical institute course for part-time farmers, high school graduates, and seasonal tobacco workers in tobacco grading and marketing. It was developed by a tobacco marketing specialist and

evaluated by instructors in community colleges. The course aim is to develop skills and abilities for a student to obtain immediate job acceptance in the tobacco industry. Sections covered are (1) history, background, and standard grades of tobacco, (2) preparation marketing, and warehousing, (3) buying, processing, and storing, and (4) practical exercises in classroom and field. This 72-hour course may be taught by a flue-cured tobacco marketing specialist as part of an occupational cluster in agricultural and biological education. In addition to the course outline, recommended teaching procedure and references are included. (DM)

VT 004 852

Micrometers and Related Measuring Tools.

Illinois Univ., Urbana. Vocational Agriculture Service
VAS-3023

Pub Date - May67

MF AVAILABLE IN VT-ERIC SET 8p.

*TEXTBOOKS, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS),
*VOCATIONAL AGRICULTURE, HIGH SCHOOLS, ADULT FARMER EDUCATION,
*MEASUREMENT INSTRUMENTS,

Designed for use by high school and adult students as text or reference material, this document presents technical information needed in using micrometers and other related measuring tools. It was designed by subject-matter specialists, teacher educators, supervisors, and an advisory committee of teachers. Major units are (1) What Are the Different Types of Micrometers, (2) How Do I Read a Micrometer Correctly, (3) How Should I Use Micrometers, (4) What Are Some Related Measuring Tools, and (5) How Should I Care For a Micrometer. The suggested time allotment is 1 to 2 hours. Teachers with a background in general agriculture may use this material with students of both sexes who have average ability, agricultural interest, and occupational objectives in mechanical areas involving the use of micrometers and other related measuring tools.

Photographs and drawings illustrate the text. This document is available for 10 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 004 920

Beef Production, A Short Course in Beef Cattle Production for Managers and Field Servicemen.

Padilla, Napoleon S.

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - Nov64

MF AVAILABLE IN VT-ERIC SET. 14p.

ADULT VOCATIONAL EDUCATION, ANIMAL SCIENCE, *AGRICULTURAL
EDUCATION, *CURRICULUM GUIDES, *TEACHING GUIDES, *CATTLE,
*AGRICULTURAL PRODUCTION,

This guide is for teacher use in planning a community college or technical institute course for managers and field servicemen in beef cattle production. It was developed by a curriculum specialist and evaluated by instructors in community colleges. The

course objective is the understanding and practical application of beef cattle fundamentals and of the latest scientific developments in the beef industry. Emphasis is placed on selection, breeding, feeding, and management. Teachers who are agricultural college graduates in animal science may use this 30-hour course as part of an occupational cluster in agricultural and biological education. Supplementary materials include a student survey form and a reference list. (DM)

VT 005 176

Grain Marketing and Handling, A Short Course in Grain Marketing for Grain Buyers, Handlers, and Processors.

Morrison, N.A.

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - May64

MF AVAILABLE IN VT-ERIC SET. 10p.

*TEACHING GUIDES, *MARKETING, *GRAIN, ADULT VOCATIONAL EDUCATION, *CURRICULUM GUIDES, *AGRICULTURAL EDUCATION, FEED INDUSTRY,

This guide is for teacher use in planning a community college or technical institute course for adults in grain marketing. It was developed by a grain marketing specialist and evaluated by community college instructors. The course objectives are to improve efficiency in handling, storing, drying, and merchandising grain. The suggested course outline includes orientation to the grain industry, grain harvesting practices, commercial grain handling and storage equipment, commercial storage practices, grain loan and storage programs, marketing grain on grade and quality standards, transportation in the grain industry, and marketing and merchandising. The teacher should be an agricultural college graduate with course work in field crops and the students either grain buyers, warehouse men, elevator operators or grain processors. Supplementary materials include a statement of current problems and needs facing the grain and feed industry in North Carolina and a list of reference materials. This course may be taught as part of an occupational cluster in agricultural and biological education. (DM)

VT 005 201

Producing Plants by Asexual Propagation.

Illinois Univ., Urbana. Vocational Agricultural Service

VAS 5006.

Pub Date - Feb68

MF AVAILABLE IN VT-ERIC SET. 19p.

*VOCATIONAL AGRICULTURE, REFERENCE MATERIALS, *TEXTBOOKS, *PLANT PROPAGATION, *ORNAMENTAL HORTICULTURE, HIGH SCHOOLS, POST SECONDARY EDUCATION, UNITS OF STUDY (SUBJECT FIELDS),

This resource unit on the asexual propagation of plants for high school and adult vocational agriculture classes was developed by a teacher educator in consultation with subject matter specialists, other teacher educators, supervisors, and an advisory committee of teachers. The textual or reference material treats the

questions: (1) How can I propagate new plants, (2) What material should I use as rooting media, (3) How should I place the cuttings in the media, and (4) How do I graft plants. The appendix includes specific plans for demonstrating propagation by stem cuttings, leaf cuttings (African violets), leaf-bud cuttings (geraniums), bulb multiplication (tunicated), and air layering. The recommended time allotment is 2 to 6 hours. The material is suitable for use by teachers with general agricultural competency with students of average ability. Line drawings and photographs illustrate the procedures. This document is available for 25 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (JM)

VT 005 202

Minimum Tillage.

Illinois Univ., Urbana. Vocational Agriculture Service
VAS4041
Pub Date - May61
MF AVAILABLE IN VT-ERIC SET. 9p.

*VOCATIONAL AGRICULTURE, *AGRICULTURAL PRODUCTION, REFERENCE MATERIALS, *TEXTBOOKS, *FIELD CROPS, SOIL SCIENCE, HIGH SCHOOLS, UNITS OF STUDY (SUBJECT FIELDS), POST SECONDARY EDUCATION,

This resource material on minimum tillage practices is for use as a text or reference by high school and adult students. It was developed by a teacher educator in consultation with subject matter specialists, other teacher educators, supervisors, and teachers. The material answers the questions--(1) What are some advantages and disadvantages of minimum tillage, (2) What methods of minimum tillage may I use, and (3) How can I get started with minimum tillage on my farm. Included are tables, drawings, and photographs. Teachers with general agricultural competency may use the material with students of average ability. The suggested time allotment is 1 to 2 hours. This document is available for 10 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (JM)

VT 005 203

Hunger Signs in Crops.

Illinois Univ., Urbana. Vocational Agriculture Service.
VAS 4011a.
Pub Date - Feb68
MF AVAILABLE IN VT-ERIC SET. 13p.

*VOCATIONAL AGRICULTURE, FERTILIZERS, *FIELD CROPS, *PLANT NUTRITION, UNITS OF STUDY (SUBJECT FIELDS), *TEXTBOOKS, HIGH SCHOOLS, REFERENCE MATERIALS, POST SECONDARY EDUCATION,

This textual or reference material on nutrient deficiencies of crops is for use in high school and adult classes. It was developed by a teacher educator in consultation with subject matter specialists, supervisors, other teacher educators, and teachers. The material answers the questions: (1) What are some of the common hunger signs of crops, (2) How can I verify hunger signs, and (3) How can hunger signs guide me in improving soil fertility. The

document is illustrated with tables, graphs, drawings, and color photographs. The material was designed for use in 1 to 3 hours by students of average ability under teachers with general agricultural competency. This document is available for \$1.15 from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (JM)

VT 005 204
Spray Painting.

Illinois Univ., Urbana. Vocational Agriculture Service.
VAS 3015
Pub Date - Jan63
MF AVAILABLE IN VT-ERIC SET. 29p.

*TEXTBOOKS, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS),
*VOCATIONAL AGRICULTURE, *PAINTING, HIGH SCHOOLS, ADULT VOCATIONAL
EDUCATION,

Designed for use by high school and adult students as text or reference materials, this pamphlet presents technical information about spray painting. It was developed by subject-matter specialists, teacher-educators, supervisors, and an advisory committee of teachers. Major units are (1) What Items of Equipment are Needed for Spray Painting, (2) What Techniques are Needed to be a Good Spray-Gun Operator, and (3) What Can be Done if the Spray Gun Fails to Operate Properly. The suggested time allotment is 2 to 8 clock hours. Teachers with a background in general agriculture may use this material with students of both sexes who have average ability, agricultural interest, and occupational objectives in production agriculture. Tabular data and illustrations are included. This document is available for 35 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 005 205
Small Engines--Principles of Operation, Trouble Shooting, and Tune-Up.

Illinois Univ., Urbana. Vocational Agriculture Service
Pub Date - May62
MF AVAILABLE IN VT-ERIC SET. 17p.

*TEXTBOOKS, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS),
*VOCATIONAL AGRICULTURE, *ENGINES, HIGH SCHOOLS, POST SECONDARY
EDUCATION,

Information concerned with principles of operation, trouble shooting, and tuneup of small engines is presented for use by high school and adult students as text or reference material. It was designed by subject-matter specialists, teacher educators, supervisors, and an advisory committee of teachers. Major units are (1) The Common Types of Small Engines, (2) The Basic Principles of Engine Operation, and (3) Trouble Shooting and Tuneup. The suggested time allotment is 1 to 4 clock hours. Teachers with a general agriculture background may use this material with students of both sexes who have average ability, agricultural interest, and

occupational objectives that require operating small engines. A list of references and pictorial diagrams are included. This document is available for 20 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 005 206

Factors Involved in the Borrowing Process.

Illinois Univ., Urbana. Vocational Agriculture Service.

VAS 2028

Pub Date - May61

MF AVAILABLE IN VT-ERIC SET. 9p.

*TEXTBOOKS, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS), *VOCATIONAL AGRICULTURE, *FARM MANAGEMENT, *CREDIT, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION,

Information about factors involved in the borrowing process is presented for use by high school and adult students as text or reference material in the study of farm credit. The material was designed by subject-matter specialists, teacher educators, supervisors, and an advisory committee of teachers. Major units are (1) ten rules for the sound and wise use of credit, (2) sound lending practice, (3) credit risk rating, (4) a case study of credit risk, and (5) three important steps in obtaining credit. The suggested time allotment is 1 to 2 clock hours. Teachers with a general agriculture background may use this material with students of both sexes who have average ability, agricultural interest, and occupational objectives in production agriculture. This document is available for 10 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 005 207

Sources of Farm Credit.

Illinois Univ., Urbana. Vocational Agriculture Service.

VAS 2027

Pub Date - May61

MF AVAILABLE IN VT-ERIC SET. 13p.

*TEXTBOOKS, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS), *VOCATIONAL AGRICULTURE, *FARM MANAGEMENT, *CREDIT, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION,

Information about farm credit is presented for use by high school and adult students as text and reference material. The material was designed by subject-matter specialists in farm management, teacher educators, supervisors, and an advisory committee of teachers. Major units are (1) total amounts and kinds of credit used, (2) sources of production credit, (3) main sources of farm mortgage credit, (4) factors considered by the lender, and (5) factors considered by the borrower. The suggested time allotment is 1 to 3 clock hours. Teachers with a background in general agriculture may use this material with students of both sexes who have average ability, agricultural interest, and occupational objectives in the farm management field. This document is available for 15 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 005 208Digestion in Animals.

Illinois Univ., Urbana. Vocational Agriculture Service.

VAS 1026

Pub Date - May60

MF AVAILABLE IN VT-ERIC SET. 9p.

*TEXTBOOKS, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS),
*VOCATIONAL AGRICULTURE, FARMING, *LIVESTOCK, *NUTRITION, HIGH
SCHOOLS, ADULT VOCATIONAL EDUCATION,

Designed for use by high school and adult students as a text or reference, this pamphlet presents technical information needed in studying the digestive system of animals. It was prepared by subject-matter specialists, teacher educators, supervisors, and an advisory committee of teachers. Major units are (1) The Digestive System, (2) Digestion in the Mouth, (3) Digestion in the Stomach, (4) Digestion in the Small Intestine, (5) Digestion in the Large Intestines, and (6) Absorption of the Digested Foodstuffs. The suggested time allotment is 1 to 2 clock hours. Teachers with a general agriculture background may use this material with students of both sexes who have average ability, agricultural interest, and occupational objectives in production agriculture. Illustrations of the animal digestive system are included. This document is available for 10 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 005 209Artificial Insemination of Livestock.

Illinois Univ., Urbana. Vocational Agriculture Service.

VAS 1002a

Pub Date - May63

MF AVAILABLE IN VT-ERIC SET. 9p.

*TEXTBOOKS, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS),
*VOCATIONAL AGRICULTURE, *LIVESTOCK, *BREEDING, HIGH SCHOOLS, ADULT
VOCATIONAL EDUCATION,

Technical information needed in artificially inseminating livestock is presented in this document for use by high school and adult students preparing to enter production agriculture. It was designed by subject-matter specialists, teacher-educators, supervisors, and an advisory committee of teachers. Major units are (1) the advantages and disadvantages of artificial insemination, (2) the reproduction organs of mammals, (3) sperm collection and storage, (4) procedure for artificially inseminating females, (5) use of cooperative breeding organizations. The suggested time allotment is 1 to 2 clock hours. Teachers with a background in general agriculture may use this material with students of both sexes who have average ability, agricultural interest, and occupational objectives in production agriculture. Insemination data are presented in diagram form. A list of references is included. This document is available for 10 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 005 210Growing Plants Indoors.

Illinois Univ., Urbana. Vocational Agriculture Service
VAS 5007

Pub Date - Feb68
MF AVAILABLE IN VT-ERIC SET. 13p.

*TEXTBOOKS, *VOCATIONAL AGRICULTURE, REFERENCE MATERIALS, UNITS OF STUDY (SUBJECT FIELDS), *ORNAMENTAL HORTICULTURE, POST SECONDARY EDUCATION, HIGH SCHOOLS, *PLANT GROWTH,

Technical information needed for growing plants indoors is presented for use by high school and adult students as text or reference material. It was designed by subject-matter specialists, teacher educators, supervisors, and an advisory committee of teachers. Major units are (1) Light, (2) Temperature, (3) Gases, (4) Humidity, (5) Soil Moisture, (6) Nutrients, (7) General Maintenance, and (8) Common Troubles. The suggested time allotment is 1 to 3 clock hours. Teachers with a background in general agriculture may use this material with students of both sexes who have average ability, agricultural interest, and occupational objectives in production agriculture. Pictorial illustrations and a table showing minimum light requirements for indoor plant growing are included. This document is available for 15 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (WB)

VT 005 272Time to Recline (Script for Slide Set).

Ohio State Univ., Columbus. Cooperative Extension Service
MM-286

Pub Date - (67)
MF AVAILABLE IN VT-ERIC SET. 28p.

*VOCATIONAL AGRICULTURE, *FERTILIZERS, FARMERS, HIGH SCHOOLS, ADULT FARMER EDUCATION, *FILMS, SOIL CONSERVATION,

The Agronomy Department staff developed this set of 58 slides, narrative script, and informative leaflet on applying lime to soil to increase crop production. The material was tested by farmers, county extension agents, and vocational agriculture teachers. It is intended for use in Midwest high school and adult farmer classes. The slide presentation requires about 20 minutes. The slides include photographic, cartoon, and graphic presentations of concepts and data. This document, the slides, a taped script, and the leaflet are available for \$11.50 from Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (JM)

VT 005 273Agricultural Supplies Business and Service Curriculum Guide.

Ohio State Dept. of Educ., Columbus. Agr. Educ. Service
Ohio State Univ., Columbus. Dept. of Agr. Education

Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 68p.

*VOCATIONAL AGRICULTURE, *AGRICULTURAL SUPPLY OCCUPATIONS, PROGRAM PLANNING, *CURRICULUM GUIDES, COOPERATIVE EDUCATION, CURRICULUM DEVELOPMENT, CURRICULUM, HIGH SCHOOLS, *PROGRAM GUIDES,

The Ohio state supervisory staff, in consultation with teacher committees, developed this guide to assist teachers in planning an agricultural supply curriculum to prepare high school vocational agriculture students for entry-level employment in agricultural business and service occupations. Major sections in the guide cover program purposes, vocational objectives, program description, program guidelines, curriculum planning guidelines, areas of instruction, and competencies to be developed. Suggested curriculums are included for (1) the senior year, (2) the junior year, (3) the related class, and (4) individual areas of instruction such as agricultural machinery and equipment, supplies, ornamental horticulture, products, service occupations, office practice, and equipment and facilities. A diagram of the cooperative work experience program and on-the-job training forms are provided. This document is available for \$1.00 from Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (JM)

VT 005 274

A Curriculum Guide for Agricultural Equipment and Mechanics.

Ohio State Dept. of Educ., Columbus. Agr. Educ. Service.

Ohio State Univ., Columbus. Dept. of Agr. Education.

Pub Date - 67

MF AVAILABLE IN VT-ERIC SET. 34p.

*VOCATIONAL AGRICULTURE, *AGRICULTURAL MACHINERY OCCUPATIONS, *CURRICULUM GUIDES, AGRICULTURAL ENGINEERING, HAND TOOLS, JOB SKILLS, CURRICULUM, EQUIPMENT, EDUCATIONAL FACILITIES, LEADERSHIP TRAINING, PROGRAM GUIDES,

The Ohio state supervisory staff, in consultation with teacher committees, developed this guide to assist teachers in planning a course in agricultural mechanics and equipment to prepare high school juniors and seniors for entry into mechanics, parts, sales, machinery set-up, and management positions. Specific educational objectives are listed in the form of 36 competencies which are classified by job. Information is provided on (1) employment opportunities, (2) local implementation of the course, (3) curriculum planning which includes an outline of related, related technical, and laboratory instruction for 2 years, (4) facilities specifications, and (5) lists of tools and equipment. A 25-hour unit on leadership training covers objectives, competencies, the Future Farmers of America, group and committee work, and the development of personal habits and traits. This document is available for \$1.00 from Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (JM)

VT 005 275

A Curriculum Guide for Vocational Horticulture.

Ohio State Dept. of Educ., Columbus. Agr. Educ. Service.
 Ohio State Univ., Columbus. Dept. of Agr. Education.
 Pub Date - 67
 MF AVAILABLE IN VT-ERIC SET. 37p.

*VOCATIONAL AGRICULTURE, *ORNAMENTAL HORTICULTURE, *CURRICULUM GUIDES, HIGH SCHOOLS, CURRICULUM, EDUCATIONAL FACILITIES, HAND TOOLS, EQUIPMENT, LEADERSHIP TRAINING, *ORNAMENTAL HORTICULTURE OCCUPATION, PROGRAM GUIDES,

The Ohio state supervisory staff, in consultation with teacher committees, developed this guide to assist teachers in planning a high school vocational horticulture curriculum to provide students with the necessary skills and understandings for securing employment. It provides (1) information about employment opportunities in ornamental horticulture, (2) a list of conditions for which the guide was prepared, (3) a suggested 2-year curriculum, which includes objectives and outlined teaching units, (4) course outlines which correlate, in parallel columns, items of related, technical related, and laboratory instruction, the time required, and the month offered, (5) teacher selection and responsibilities, (6) specifications for facilities, and (7) lists of tools and equipment. A 25-hour unit on leadership training, which may be incorporated into the vocational horticulture course outline, covers objectives, competencies, the Future Farmers of America, group and committee work, and the development of personal habits and traits. This document is available for \$1.00 from Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (JM)

VT 005 394

Poultry Management and Health, A Short Course in Poultry Technology.

Dawson, C.G.
 North Carolina State Board of Ed, Raleigh. Curriculum Lab.
 Pub Date - May 64
 MF AVAILABLE IN VT-ERIC SET. 15p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, AGRICULTURAL TECHNICIANS, ANIMAL SCIENCE, *POULTRY, ADULT VOCATIONAL EDUCATION,

A content outline for a 30-hour course, to be used by adult education teachers in preparing agricultural service technicians for poultry producers was prepared by subject-matter specialists and evaluated by agricultural and biological education consultants. The sections are Management and Sanitation in Disease and Parasite Prevention, and Poultry Health which deals with the causes, symptoms, prevention, and control of specific poultry diseases and parasites. Teachers who are college graduates in poultry science may use this material with community college or technical institute students. (WB)

VT 005 395

Tractor Electrical Systems, A Short Course in Equipment Technology for Servicemen in Farm Machinery Industry.

Beamon, D.L.
 North Carolina State Board of Ed, Raleigh. Curriculum Lab.
 Pub Date - Jul64
 MF AVAILABLE IN VT-ERIC SET. 7p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, ADULT VOCATIONAL EDUCATION, *TRACTORS, *FARM MECHANICS (OCCUPATION),

Technical information needed in the farm machinery industry is presented in this course outline for use by adult education teachers in preparing equipment servicemen for employment in the farm machinery field. It was prepared by subject-matter specialists and evaluated by agricultural and biological education consultants. Major units are (1) Fundamentals of Electricity, (2) Storage Batteries, (3) Cranking Motor Circuit, (4) Battery Ignition Systems, (5) Magneto Ignition Systems, and (6) Charging Circuit. The suggested time allotment is 20 hours. Teachers who are agricultural college graduates in tractors and machinery or mechanics may use this material with community college or technical institute students who have occupational objectives in the farm machinery industry. (WB)

VT 005 396

Farm Records and Taxes, A Short Course in Farm Accounting and Taxation.

Padilla, Napoleon S.
 North Carolina State Board of Ed, Raleigh. Curriculum Lab.
 Pub Date - Jan65
 MF AVAILABLE IN VT-ERIC SET. 15p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, *FARM ACCOUNTS, FARM MANAGEMENT, *TAXES, ADULT VOCATIONAL EDUCATION,

Information needed in farm accounting and taxation is presented in this course guide for use by adult education teachers in preparing farm managers and others responsible for farm record keeping. It was prepared by subject and curriculum specialists and evaluated by agricultural and biological education consultants. Major units are (1) The Physical Records, (2) Farm Inventory, (3) Farm Financial Accounts, (4) Analysis of the Farm Records, (5) Measures of Performance, (6) Income Tax and Special Accounting Problems, (7) Enterprise Accounts, (8) Partnership and Rented Farms, (9) Farm Budgeting and Planning, and (10) Linear Programing. The suggested time allotment is 72 hours. An accountant or lawyer may use this material with community college or technical institute students who have an interest and need for farm accounting and taxation information. A bibliography, a student survey form, and a course planning form are included. (WB)

VT 005 397

Swine Feeding and Management, A Short Course in Swine Feeding and Management for Swine Fieldmen.

Padilla, Napoleon S.
 North Carolina State Board of Ed, Raleigh. Curriculum Lab.
 Pub Date - Dec64
 MF AVAILABLE IN VT-ERIC SET. 13p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, *FEEDS, *SWINE,
ADULT VOCATIONAL EDUCATION,

This course content guide is for use by adult education teachers in preparing fieldmen in swine feeding and management. It was prepared by a curriculum specialist and evaluated by agricultural and biological education instructors. Major units are (1) History and Development in the Swine Industry, (2) Distribution, Adaptation, and the Future of the Swine Industry, (3) Types and Breeds of Swine, (4) Selecting and Judging Swine, (5) Breeding Swine, (6) Feeding Swine, (7) Buildings and Equipment for Swine, (8) Swine Health, (9) Marketing and Slaughtering Hogs, (10) Swine Management, (11) Automation in the Swine Industry, and (12) Integration in the Swine Industry. The suggested time allotment is 30 hours. Teachers who are agricultural college graduates in swine or animal science may use this material with community college or technical institute students having occupational objectives in agricultural or related biological areas. A list of references and a student survey form are included. (WB)

VT 005 398

Fertilizers and Lime, A Short Course in Fertilizer Technology for Fertilizer Handlers.

Dawson, C. G

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - May64

MF AVAILABLE IN VT-ERIC SET. 14p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, *FERTILIZERS, *ADULT VOCATIONAL EDUCATION,

This course outline is for teacher use with fertilizer handlers, agricultural businessmen, and others who advise producers on the use of fertilizers and lime. It was prepared by subject-matter specialists and evaluated by agricultural and biological education consultants. Major units are (1) Economics of Fertilizers and Lime Usage, (2) Plant Growth and Nutrition, (3) Nitrogen Fertilizers, (4) Phosphorus Fertilizers, (5) Potassium Fertilizers, (6) Secondary and Trace Element Fertilizers, (7) Mixed Fertilizers, (8) Liquid Fertilizers, (9) Farm Manures and Plant Residues, (10) Liming Materials, (11) Inspection and Control, (12) Soil Properties Affecting Nutrient Availability, (13) The Soil Testing Service, and (14) The Soil Test Report. The suggested time allotment is 20 hours. Teachers who are agricultural college graduates in soil science may use this material with adult students who have occupational objectives in distributing and retailing fertilizers and fertilizer materials to agricultural producers. A bibliography is included. (WB)

VT 005 399

Agricultural Law, A Short Course in Principles of Law and The Laws Pertaining to Agriculture.

Dawson, C.G.

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - May64

MF AVAILABLE IN VT-ERIC SET. 16p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, *LAWS, *AGRICULTURE, ADULT VOCATIONAL EDUCATION,

Technical information in agricultural law is presented in this course content outline for use by adult education teachers in instructing agricultural personnel in the fundamentals of law applicable to producing, processing, and marketing agricultural commodities. It was prepared by subject-matter specialists and evaluated by agricultural and biological education consultants. Part One gives the fundamentals of law relative to contracts, real and personal property, negotiable instruments, landlords and tenants, and farm business organization. Part Two deals with laws and regulations concerning the production and marketing of agricultural commodities, and the sale and utilization of agricultural supplies and materials. The suggested time allotment is 30 hours. Agricultural college graduates or lawyers may use this material with community college or technical institute students who have need for information on agricultural law. A bibliography is included. (WB)

VT 005 461

Combines and Combining.

Ohio State Dept. of Education, Columbus. Agr. Educ. Service

Ohio State Univ., Columbus. Dept of Agr. Education

Pub Date - 68

MF AVAILABLE IN VT-ERIC SET. 112p.

*TEXTBOOKS, UNITS OF STUDY (SUBJECT FIELDS), REFERENCE MATERIALS, *VOCATIONAL AGRICULTURE, *AGRICULTURAL MACHINERY, GRADE 12, GRADE 11, *HARVESTING,

Technical information needed by farmers or custom combine operators in operating grain combine machines is presented for use by high school or area vocational agriculture students as text or reference material. It was prepared by a state director of vocational agriculture curriculum materials service with the assistance of consulting agricultural engineers. Major units are The Value of Doing a Good Job of Combining, The Basic Design of the Combine, Operation of the Combine, and Economics of Owning a Combine. Numerous line drawings, charts, graphs, and forms for recording information are included. The suggested time allotment is 30 hours. Teachers of vocational agriculture may use the material with grade 11 and 12 students who are enrolled in production agriculture or agricultural mechanics courses. A series of 30 color slides, "Combines and Combining," and a 50-question examination with key are available. This document is available for \$1.00 from Ohio Vocational Agriculture, Instructional Materials Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210. (WB)

VT 005 468

Ornamental Horticulture, A Short Course Instructional Guide from Agricultural and Biological Education.

Lindberg, W.H. * and others

North Carolina State Board of Ed, Raleigh. Curriculum Lab.

Pub Date - May64

MF AVAILABLE IN VT-ERIC SET. 25p.

*TEACHING GUIDES, ADULT VOCATIONAL EDUCATION, *ORNAMENTAL HORTICULTURE, *CURRICULUM GUIDES, *AGRICULTURAL EDUCATION, *ORNAMENTAL HORTICULTURE OCCUPATION,

This guide is for teacher use in planning a community college or technical institute course for adults in ornamental horticulture. It was developed by a curriculum specialist and evaluated by instructors in community colleges. The course is designed to develop skills and understandings in (1) developing the landscape, lawn and shrubbery arrangement, (2) planting, fertilizing, pruning, and caring for ornamental plants, (3) recognizing insect and disease problems, (4) directing workers in ornamental horticulture, and (5) learning about sources of information. The major course outline headings are (1) Introduction and Orientation to the Course, (2) Planning the Homestead, (3) Plant Classification and Botanical Information, (4) Soils and Fertilizers, (5) Ornamental Plants, Identification and Use, (6) Pruning and Maintenance of Trees, Shrubs, and Evergreens, (7) Lawns, (8) Annual and Perennial Flowering Plants, (9) Plant Propagation, Hotbeds, Coldframes, Plastic Greenhouses, (10) Azaleas, Camellias, Sasanquas, Rhododendrons, and Roses, and (11) Disease, Insect and Weed Control. The teacher for this 24-hour course should be an agricultural college graduate in ornamental horticulture. Supplementary materials include suggestions to the teacher and a list of reference materials. (DM)

VT 005 484

Pre-Professional Agriculture (All Other Agriculture), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service
Pub Date - 66
MF AVAILABLE IN VT-ERIC SET. 37p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *OFF FARM AGRICULTURAL OCCUPATIONS, AGRICULTURAL CHEMICAL OCCUPATIONS, AGRICULTURAL SUPPLY OCCUPATIONS, PROFESSIONAL OCCUPATIONS, *AGRICULTURE, GRADE 11, GRADE 12,
Alabama, Southeastern United States,

Study questions, suggested learning activities, and references concerned with preparation for entry into professional agriculture fields are presented for individualized study by vocational agriculture students. They were developed by a district vocational agriculture supervisor with assistance from a subject-matter specialist and a teacher educator. Major units include (1) Employment Opportunities, (2) Livestock Production, (3) Crop Production, (4) Chemical Weed Control, (5) Production, Care, and Maintenance of Ornamental Plants, (6) Disease and Insect Control in Plants, (7) Poultry Production, (8) Farm Management, (9) Farm Law and Legal Problems, (10) Salesmanship, (11) Credit and Collections, and (12) Personnel Management. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. (WB)

VT 005 485

Pre-Professional Agriculture (All Other Agriculture), Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
 Pub Date - 67
 MF AVAILABLE IN VT-ERIC SET. 33p.

*CURRICULUM GUIDES, TEACHING GUIDES, *VOCATIONAL AGRICULTURE,
 *OFF FARM AGRICULTURAL OCCUPATIONS, *PROFESSIONAL OCCUPATIONS,
 *AGRICULTURE, GRADE 11, GRADE 12, BIBLIOGRAPHIES, EMPLOYMENT
 OPPORTUNITIES,

Information and learning activities concerned with agricultural fields including specialized services, education, inspection, regulation, and government services are presented in this course outline for use in preprofessional agriculture by high school vocational agriculture students and teachers. It was developed by a vocational agriculture supervisor with assistance from a subject-matter specialist and teacher educator. Teaching units include: (1) Employment Opportunities in Professional Agriculture, (2) Leadership, (3) Supervised Practice, (4) Livestock Production, (5) Crop Production, (6) Chemical Weed Control, (7) Disease and Insect Control in Plants, (8) Farm Management, (9) Farm Law and Legal Problems, (10) Salesmanship, (11) Credit and Collection, (12) Personnel Management, (13) Business Communications, and (14) Farm and Home Mechanics. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. A bibliography is included. (WB)

VT 005 486

Agricultural Products (Processing-Marketing-Inspection-Services),
 Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
 Pub Date - 66
 MF AVAILABLE IN VT-ERIC SET. 29p.

*CURRICULUM GUIDES, TEACHING GUIDES, *VOCATIONAL AGRICULTURE,
 *OFF FARM AGRICULTURAL OCCUPATIONS, *AGRICULTURAL PRODUCTION,
 GRADE 12, GRADE 11,

Information and learning activities concerned with principles and operations involved in preparing agricultural products for use or for sale are presented for use by high school vocational agriculture students and teachers. The material was developed by a subject-matter specialist with the assistance of a teacher educator and a specialist in food processing and technology. The units include (1) Employment Opportunities in the Field of Agricultural Products in Alabama, (2) Principles of a Free Economy, (3) Understanding Economic Factors that Affect Farm Business, (4) Marketing Peanuts, (5) Marketing Beef Cattle, (6) Government Regulation of Livestock Marketing, (7) Marketing Fruits and Vegetables, (8) Food Processing, (9) Storage and Warehousing of Agricultural Products, (10) Inspection, Grading, Shipping, and Handling of Agricultural Products, and (11) Agricultural Shop. The time allotment is to be determined by the local instructor. Vocational agriculture teachers, preferably with coursework in food processing, may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. Sources of suggested instructional materials and references are included. A student study guide is available as VT 005 487. (WB)

VT 005 487

Agricultural Products (Processing-Marketing-Inspection-Services),
Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 35p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *OFF FARM AGRICULTURAL
OCCUPATIONS, *AGRICULTURAL PRODUCTION, GRADE 11, GRADE 12,

Questions, suggested learning activities, and references concerned with the principles and operations involved in preparing agricultural products for use or for sale are presented for individualized use by high school vocational agriculture students. The material was developed by a subject-matter specialist with the assistance of a teacher educator and a specialist in food processing and technology. Major units include (1) Principles of a Free Economy, (2) Understanding Economic Factors that Affect Farm Business, (3) Marketing Grain, (4) Marketing Beef Cattle, (5) Governmental Regulation of Livestock Marketing, (6) Marketing Fruits and Vegetables, (7) Marketing Forest Products, (8) Processing Fruits and Vegetables for Market, (9) Wholesale and Retail Meat Processing, (10) Food Processing, (11) Packaging and Protection of Agricultural Products, (12) Storage and Warehousing of Agricultural Products, and (13) Inspection, Grading, Shipping, and Handling of Agricultural Products. The time allotment is to be determined by the local instructor. Vocational agriculture teachers preferably with coursework in food processing may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. A list of employment opportunities in marketing, processing, inspection, and servicing agricultural products is included. A course outline is available as VT 005 486. (WB)

VT 005 490

Ornamental Horticulture (Production-Processing-Marketing-Services),
Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 63

MF AVAILABLE IN VT-ERIC SET. 39p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *ORNAMENTAL HORTICULTURE
OCCUPATION, *ORNAMENTAL HORTICULTURE, GRADE 11, GRADE 12,
BIBLIOGRAPHIES,

Questions and suggested learning activities concerned with the principles and operations involved in the production, processing, marketing, and services of ornamental horticulture products are presented in this study guide for individualized use by high school vocational agriculture students. It was designed by a vocational agriculture supervisor with the assistance of a subject-matter specialist, a teacher educator, and college horticulture staff members. The units are (1) exploring occupational opportunities in ornamental horticulture plants, (2) identifying ornamental horticulture plants, (3) propagating horticulture plants, (4) using soil and other plant growing media, (5) producing the floral crop, (6) designing floral arrangements, (7) producing the nursery crop, (8) controlling plant insects and diseases, (9) constructing,

maintaining, and using plant growing structures, (10) merchandising horticultural plants and supplies, (11) developing the landscape design or plan, (12) establishing and caring for lawns and turfs, and (13) practicing arboriculture. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training who have specialized in horticulture may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. A list of employment opportunities in ornamental horticulture occupations and suggested references are included. (WB)

VT 005 491

Ornamental Horticulture (Production-Processing-Marketing-Services), Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 63

MF AVAILABLE IN VT-ERIC SET. 17p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, *ORNAMENTAL HORTICULTURE, GRADE 11, GRADE 12, BIBLIOGRAPHIES, ORNAMENTAL HORTICULTURE OCCUPATION,

Information and learning activities concerned with production, management, sales, and services in greenhouses, nurseries, and garden centers are presented in this course outline for use by high school vocational agriculture students and teachers. It was designed by a supervisor, subject-matter specialist, teacher educator, and college horticulture staff members. The unit titles are (1) Exploring Occupational Opportunities in Ornamental Horticulture, (2) Leadership, (3) Supervised Practice Programs, (4) Identifying Ornamental Horticulture Plants, (5) Propagating Horticulture Plants, (6) Using Soil and Other Plant Growth Media, (7) Floral Crop Production, (8) Floral Design, (9) Nursery Crop Production, (10) Controlling Plant Insects and Diseases, (11) Constructing, Maintaining, and Using Plant Growing Structures, (12) Merchandising Horticulture Plants and Supplies, (13) Developing a Landscape Design, (14) Establishing and Caring for Lawns and Turfs, (15) Arboriculture, (16) Succeeding on the Job, (17) Welding, (18) Small Building Construction, (19) Water Systems and Plumbing, (20) Electricity, and (21) Operating, Repairing, and Maintaining Small Power and Other Tools and Equipment. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training who specialized in horticulture may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. A list of suggested instructional materials and references is included. (WB)

VT 005 492

Forestry (Production-Processing-Marketing-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 19p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, FORESTRY OCCUPATIONS,
*FORESTRY, GRADE 11, GRADE 12, BIBLIOGRAPHIES,

Study questions and suggested learning activities concerned with principles and practices involved in producing, processing, marketing, and servicing forestry products are presented in this study guide for use by high school vocational agriculture students and teachers. It was designed by a district supervisor with the assistance of a subject-matter specialist, teacher educators, and an industry representative. The units are (1) Career Opportunities in Forestry, (2) Forestry in Alabama, (3) Forest Trees, (4) Protecting the Forest, (5) Measurements in Forestry, (6) Cuttings, (7) Reforestation, (8) Marketing Forest Products, (9) Multiple Use of Forests, and (10) Special Forestry Problems. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training and special instruction in forestry may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture. Suggested references and a list of employment opportunities are included. (WB)

VT 005 493

Forestry (Production-Processing-Marketing-Services), Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 33p.

*CURRICULUM GUIDES, UNITS OF STUDY (SUBJECT FIELDS), *VOCATIONAL AGRICULTURE, *FORESTRY OCCUPATIONS, *FORESTRY, GRADE 11, GRADE 12, Alabama and Southeastern United States,

Information and learning activities for two courses related to managing trees grown as a crop and pulpwood production in Alabama and the Southeast are presented for use by high school vocational agriculture students and teachers. The outlines were developed by a district supervisor with the assistance of a subject-matter specialist, a teacher educator, staff members, and a paper company representative. The units in the first course are: (1) Some Employment Opportunities in Forestry, (2) Leadership, (3) Supervised Practice and Work Experience Programs, (4) Forestry in Alabama, (5) Forest Trees, (6) Protecting the Forest, (7) Measurements in Forestry, (8) Cuttings, (9) Reforestation, (10) Marketing Forest Products, (11) Multiple Use of Forests, (12) Special Forestry Products, and (13) Agricultural Shop. Major units in forest products production, which provides specialized training for twelfth-grade students interested in forestry and forest products, include--(1) Introduction to Plywood Products, (2) Purchasing Stumpage, (3) Marketing Forest Products, (4) Equipment for Pulpwood Production, (5) Labor for Pulpwood Production, (6) Financing a Pulpwood Producer, (7) Establishing and Maintaining Good Human Relations in Labor Management, and (8) Safety. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training and special instruction in forestry may use this material with junior and senior boys who have completed 2 years of vocational agriculture. A bibliography is included. (WB)

VT 005 494

Agricultural Resources (Conservation-Utilization-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service
 Pub Date - 66
 MF AVAILABLE IN VT-ERIC SET. 20p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *NATURAL RESOURCES,
 GRADE 12, GRADE 11, CONSERVATION EDUCATION,
 Alabama, Southeastern United States,

Study questions, learning activities, and references concerned with principles and practices in the conservation, utilization, and service of agricultural resources are presented for individualized use by high school vocational agriculture students and teachers. It was designed by a district supervisor with the assistance of a subject-matter specialist and teacher educator. Major units are (1) Career Opportunities in Agricultural Resources, (2) Soil Conservation and Utilization, (3) Recreation, Development, and Management, (4) Wildlife Conservation and Utilization, (5) Water Conservation and Utilization, (6) Air Conservation, and (7) Fish, Including Farms and Hatcheries. The time allotment is to be determined by the local teacher. Teachers with general vocational agriculture college training may use this material with junior and senior boys who have completed 2 years of vocational agriculture. Some employment opportunities are listed. (WB)

VT 005 495

Agricultural Resources (Conservation-Utilization-Services), Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.
 Pub Date - 66
 MF AVAILABLE IN VT-ERIC SET. 18p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, *OFF FARM AGRICULTURAL OCCUPATIONS, *NATURAL RESOURCES, SOIL CONSERVATION, WILDLIFE MANAGEMENT, WATER RESOURCES, GRADE 12, GRADE 11, BIBLIOGRAPHIES, CONSERVATION EDUCATION,

Information and learning activities related to the principles and processes involved in conserving and improving agricultural resources are presented in this course outline for use by vocational agriculture students and teachers. It was developed by a district supervisor with the assistance of a subject-matter specialist and a teacher educator. The units are (1) Occupational Opportunities in Agricultural Resources, (2) Leadership, (3) Supervised Practice and Work Experience Programs, (4) Soil Conservation and Utilization, (5) Forest Conservation and Utilization, (6) Recreation Development and Management, (7) Wildlife Conservation and Utilization, (8) Water Conservation and Utilization, (9) Air Conservation, (10) Fish, Including Farms and Hatcheries, and (11) Agricultural Shop. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with junior and senior boys who have completed 2 years of vocational agriculture. A bibliography is included. (WB)

VT 005 496

Agricultural Mechanics (Repair-Operation-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 46p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL MACHINERY OCCUPATIONS, *AGRICULTURAL MACHINERY, AGRICULTURAL ENGINEERING, GRADE 11, GRADE 12,

Study questions and learning activities concerned with repair, operation, and servicing of farm machinery, related equipment, structures, and conveniences are presented for individualized use by high school vocational agriculture students. The guide was designed by a district supervisor with the assistance of a subject-matter specialist and teacher educator. Major unit outlines included are career opportunities in agricultural mechanics, oxyacetylene welding, farm plumbing, farm building and construction, electric motors, painting and wood preservation, farm water systems, operating procedures of an agricultural machinery parts department, agricultural salesmanship, arc welding, hydraulic power transfer systems, tractor tuneup and maintenance, diesel engine systems, and selection of machinery. Each contains questions, suggested learning activities, and references. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training and special shop instructors may use this material with junior and senior boys who have completed 2 years of vocational agriculture. Career opportunities in agricultural mechanics are listed. (WB)

VT 005 497

Agricultural Mechanics (Repair-Operation-Services), Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 64

MF AVAILABLE IN VT-ERIC SET. 28p.

*CURRICULUM GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL MACHINERY, *AGRICULTURAL MACHINERY OCCUPATIONS, *AGRICULTURAL ENGINEERING, GRADE 11, GRADE 12, BIBLIOGRAPHIES,

Information and learning activities concerned with operating, marketing, and servicing agricultural power machinery and related equipment is presented for use by high school vocational agriculture students and teachers in preparing employees for the agricultural mechanics field. It was prepared by a vocational agriculture district supervisor with the assistance of a subject-matter specialist and a teacher educator. Representative of 23 unit outlines are (1) Career Opportunities in Agricultural Mechanics, (2) Leadership, (3) Supervised Practice and Work Experience Programs, (4) Farm Plumbing, (5) Farm Building and Construction, (6) Electric Motors, (7) Farm Water Systems, (8) Organization and Management of Agricultural Machinery Dealerships, (9) Mechanical Systems of Power Transmission, and (10) Tractor Tune-Up and Maintenance. The time allotment is to be determined by the local teacher. Teachers with general vocational agriculture college training and special shop instructors may use this material with

11th and 12th grade boys who have completed 2 years of vocational agriculture. Sources of suggested instructional materials and references are included. (WB)

VT 005 498

Agricultural Production (Animal Science-Plant Science-Mechanics-Management), Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 61

MF AVAILABLE IN VT-ERIC SET. 43p.

*CURRICULUM GUIDES, TEACHING GUIDES, *VOCATIONAL AGRICULTURE,
*AGRICULTURAL PRODUCTION, GRADE 11, GRADE 12,

Information and learning activities concerned with principles and practices in agricultural production are presented for use by high school vocational agriculture students and teachers in preparing commercial and part-time farmers. The outline was developed by a livestock and farm management specialist, a subject matter specialist, and a teacher educator. The units are (1) Some Employment Opportunities in Agricultural Production, (2) Leadership, (3) Supervised Practices and Work Experience Programs, (4) Animal Science, (5) Plant Science, and (6) Agricultural Mechanics. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture and have occupational objectives in production agriculture. A list of suggested references and instructional material is included. A student study guide is available as VT 005 499. (WB)

VT 005 499

Agricultural Production (Animal Science-Plant Science-Mechanics-Management), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 61

MF AVAILABLE IN VT-ERIC SET. 38p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL PRODUCTION,
GRADE 11, GRADE 12,

Study questions, suggested learning activities, and references concerned with agricultural production are presented for individualized use by high school vocational agriculture students preparing for farming employment. The material was developed by a subject-matter specialist, a livestock and farm management specialist, and a teacher educator. The units are (1) Employment Opportunities in Agricultural Production, (2) Animal Science, (3) Production Management in Livestock, (4) Plant Science, and (5) Farm Business Management. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture and have occupational objectives in production farming. Some employment opportunities in agricultural production are included. A course outline is available as VT 005 498. (WB)

VT 005 500

Agricultural Supplies (Processing-Marketing-Services), Student Study Guide.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 23p.

*STUDY GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL SUPPLY OCCUPATIONS, *AGRICULTURAL SUPPLIES, GRADE 11, GRADE 12,

Questions, suggested learning activities, and references concerned with principles and practices involved in processing, marketing, and servicing agricultural supplies are presented for individualized use by high school vocational agriculture students. The material was developed by an agribusiness and continuing education specialist with assistance from a subject-matter specialist and a teacher educator. The units are (1) Career Opportunities in Agricultural Supplies, Sales, and Services, (2) Relations Between Persons Engaged in Agricultural Sales and Services, (3) Agricultural Salesmanship, (4) Organization and Functions of Agricultural Businesses, (5) Agricultural Business Procedure, (6) Feeds--Sales and Service, (7) Crop, Lawn, and Garden Seeds--Sales and Service, (8) Fertilizers--Sales and Service, (9) Agricultural Chemicals, and (10) Miscellaneous Agricultural Supplies and Small Equipment--Sales and Service. The time allotment is to be determined by the local instructor. Teachers with a general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture and have occupational objectives in agricultural supplies. A list of possible employment opportunities in agricultural supplies is included. A course outline is available as VT 005 501. (WB)

VT 005 501

Agricultural Supplies (Processing-Marketing-Services), Course Outline.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 18p.

*CURRICULUM GUIDES, TEACHING GUIDES, *VOCATIONAL AGRICULTURE, *AGRICULTURAL SUPPLY OCCUPATIONS, *AGRICULTURAL SUPPLIES, GRADE 11, GRADE 12,

Information to acquaint students with principles and practices involved in processing, marketing, and servicing agricultural supplies is presented for use by high school vocational agriculture students and teachers. It was developed by an agribusiness and continuing education specialist with assistance from a subject matter specialist and a teacher educator. The 16 units, related to appropriate references, include (1) Career Opportunities in Agricultural Sales and Services, (2) Leadership, (3) Supervised Practice and Work Experience Programs, (4) Farm and Home Electrification, (5) Agricultural Salesmanship, (6) Agricultural Business Procedures, (7) Feeds, Sales, and Service, (8) Fertilizers, Sales and Service, and (9) Agricultural Chemicals, Sales and Services. The time allotment is to be determined by the local instructor. Teachers with general vocational agriculture college training may use this material with 11th and 12th grade boys who have completed 2 years of vocational agriculture and have

occupational objectives in the area of agricultural supplies. Lists of suggested references, posters, filmstrips, slides, and films, and of employment opportunities in agricultural supplies are included. A student study guide is available as VT 005 500. (WB)

VT 005 546

Dairy Cattle Feeding.

Illinois Univ., Urbana. Vocational Agriculture Service.

VAS 1020a

Pub Date - Feb68

MF AVAILABLE IN VT-ERIC SET. 12p.

*TEXTBOOKS, REFERENCE BOOKS, *VOCATIONAL AGRICULTURE, *FEEDS, *CATTLE, UNITS OF STUDY (SUBJECT FIELDS), HIGH SCHOOLS, POST SECONDARY EDUCATION,

Textual and reference material in feeding dairy cattle is presented for use by students in high school, post-high school, and adult education. It was developed by an individual author with assistance from subject matter specialists, teacher educators, supervisors, and teachers. Major topics covered are (1) nutrients in dairy feeds, (2) roughages for dairy cows, (3) grains and supplements for dairy cows, (4) challenge feeding, and (5) feeding heifers. Teachers competent in agriculture may use this document for instructing students of average ability with an interest and occupational goal in dairying or related occupations. The suggested time allotment is 1-3 clock hours. Sketches and tables illustrate the text. This document is available for 15 cents from Vocational Agriculture Service, 434 Mumford Hall, University of Illinois, Urbana, Illinois 61801. (DM)

VT 005 652

Agricultural Orientation, Third Edition.

Ball, Wilbur P.

Pub Date - May68

MF AVAILABLE IN VT-ERIC SET. 78p.

*TEXTBOOKS, *AGRICULTURAL EDUCATION, *AGRICULTURAL OCCUPATIONS, ORIENTATION MATERIALS, AGRICULTURAL COLLEGES, JUNIOR COLLEGES, SCHOOL ORIENTATION, *AGRICULTURE,

A survey of agriculture and its related agencies and job opportunities is presented for teacher and student use in a beginning agriculture course in 4-year or junior colleges. It was developed by an agricultural education staff member. Student objectives of the course are to (1) become acquainted with the history of the School of Agriculture at Fresno State College, (2) become acquainted with personnel services, (3) recognize the importance of agriculture, (4) acquire a greater appreciation of agriculture as a vocation or avocation, (5) gain a knowledge of factors to consider in becoming established in an agricultural occupation, (6) become familiar with employment opportunities, and (7) plan an educational program. References, course requirements, method of evaluation, course content, and a class schedule are included. Course content covers (1) career planning, (2) student difficulties, (3) study practices, (4) time schedules, (5) a changing agriculture, (6) California agriculture, (7) agricultural extension service, (8) land grant colleges and universities, (9) the United States Department of Agriculture, (10) the Peace Corps,

and (11) world food supply. This document may be used by agricultural college teachers with some background in counseling for a one-semester course. A bibliography is included. This document is available for \$2.95 from Fresno State College Bookstore, Fresno, California 93726. (DM)

VT 005 873

Plant Food and Fertilizers (Teaching Unit). Vocational Agriculture Series.

Green, H.W.

Alabama State Dept of Educ, Montgomery. Agr Educ Service.

Pub Date - Aug66

MF AVAILABLE IN VT-ERIC SET. 96p.

*REFERENCE BOOKS, *VOCATIONAL AGRICULTURE, *FERTILIZERS, HIGH SCHOOLS, UNITS OF STUDY (SUBJECT FIELDS), *AGRONOMY, Alabama,

Designed by a district agricultural education supervisor, this reference is recommended for teacher and student use as part of a unit in soil fertility. Content includes discussion of (1) nutrient uptake by plants, (2) fertilizer history and importance, (3) essential plant nutrients, (4) how fertilizers affect soils and plants, (5) nitrogen, phosphate, potassium, and trace mineral fertilizers, (6) barnyard manure, (7) fertilizer economics, (8) fertilizer problems, (9) soil testing, (10) fertilizer selection, and (11) fertilizer application. This unit is recommended for high school vocational agriculture classes as part of an occupational cluster in agricultural production and supplies. A related section contains information concerning fertilizer utilization as a method of maximizing profits from available capital and statistics of fertilizer use in Alabama. (DM)

VT 006 284

Official Manual for Future Farmers of America, the National Organization for Students of Vocational Agriculture.

Future Farmers of America, Washington, D.C.

Pub Date - Jan68

MF AVAILABLE IN VT-ERIC SET. 130p.

*VOCATIONAL AGRICULTURE, *STUDENT ORGANIZATIONS, YOUTH CLUBS, *MANUALS, PROGRAM DEVELOPMENT, ACTIVITIES, Future Farmers of America,

This revised official manual was prepared to assist members and advisors in organizing and conducting Future Farmers of America (FFA) organizations. Sections in the manual are concerned with the history of the F.F.A., organization operation, local chapter organization, the chapter work program, chapter meetings, parliamentary procedure, chapter activities, ceremonies, banquets, and publicity. Information about the Future Farmers Supply Service, the "National Future Farmer" magazine, the FFA calendar, and the FFA Foundation is given. The FFA's national constitution and bylaws, the essentials of a good chapter, suggestions for radio and television programs, American flag regulations, collegiate chapter information, legislation, policies, and club songs are included. Copies of this document are available from Future Farmers Supply Service, Alexandria, Virginia 22306. (JM)

BUSINESS AND
OFFICE EDUCATION
SECTION

VT 000 085

Data Processing for Business Education Departments in Pennsylvania's Public Schools. Bulletin 276.

LaSalle, James * and others
 Pennsylvania State Dept of Public Instruction, Harrisburg
 Pub Date - Aug64
 MF AVAILABLE IN VT-ERIC SET. 107p.

*BUSINESS EDUCATION, OFFICE OCCUPATIONS EDUCATION, *DATA PROCESSING,
 *RESOURCE UNITS, DATA PROCESSING OCCUPATIONS, *EQUIPMENT,
 EMPLOYMENT OPPORTUNITIES, EMPLOYMENT TRENDS, COMPUTERS, GRADE 12,

This guide was prepared to give high school business teachers a background in data processing. It was developed by college and high school business educators in Pennsylvania with assistance from members of the Department of Public Instruction. Much of the information can be used as a reference in preparing daily lesson plans for a 1-year course at the 12th grade level. Chapter Nine gives details on unit record equipment and should help the teacher answer student questions, select equipment, and converse more intelligently with businessmen about this equipment. Chapter Ten considers computer characteristics and gives background information on electronic computers. Other chapters deal with the challenge and responsibility of business education, the effect of data processing on the economy, data processing in retrospect and prospects, the paper explosion, employment opportunities, common language media, and areas in which data processing is playing an increasingly important role. It was recommended that a basic orientation or survey course in data processing be offered in Pennsylvania secondary schools. Although equipment is not necessary for this course, the following machines were recommended for a more comprehensive program: key punch, verifier, interpreter, sorter, collator, reproducer, and accounting machine. A glossary, a list of questions and projects to help teachers evaluate pupil understanding of data processing, and a list of instructional aids are included. This document is available for 21 cents from Business and Office Occupations Education, State Department of Public Instruction, Harrisburg, Pennsylvania 17126. (PS)

VT 000 424

ED 017 626

Office Occupations, Individual Instruction Materials.

Iowa State Dept. of Public Instr., Des Moines
 665I-1362VE
 Pub Date - Jun65
 EDRS PRICE MF-\$0.25 HC-\$0.52 11p.

*OFFICE OCCUPATIONS EDUCATION, *INDIVIDUAL INSTRUCTION,
 *BIBLIOGRAPHIES, *INSTRUCTIONAL MATERIALS,

The 79 items listed in this bibliography were selected for the benefit of teacher-coordinators of office occupations programs. Examples of material included are a combination textbook-workbook which provides training in alphabetic indexing, a combination textbook-workbook which contains penmanship drills and diagnostic drills, a paperbound book which includes 24 letter models for further training in the mechanical preparation of business letters, a king-size typing wall chart that doubles as a projection screen,

a pocket-sized paperbound booklet giving rules on punctuation, a self-teaching programed text on how to write effective reports, a workbook that provides a thorough review of the fundamentals of mathematics, a short course of 31 assignments giving students an opportunity to improve their typing skills with true-to-life office problems, a programed business mathematics book, a set consisting of 10 dual-track 1-hour reels of skill-building tapes for training medical secretarial students, a new programed-style book containing fifty 15-minute lessons for a thorough review of spelling principles, and a programed book that presents in step-by-step sequence the major use of the commas. Brief annotations are given. (PS)

VT 000 609

Teaching Guide for Vocational Office Training, Suggested Content, Instructional Procedures, and Achievement Goals for Virginia High Schools. Part III. Bulletin, Volume 45, Number 10.

Virginia State Board of Educ., Richmond. Bus Educ Service.

Pub Date - Jan63

MF AVAILABLE IN VT-ERIC SET. 133p.

*CURRICULUM GUIDES, *TEACHING GUIDES, *OFFICE OCCUPATIONS EDUCATION, *OFFICE PRACTICE, GRADE 12,

Essentially a finishing course for the stenographic student and a basic skill training course for the nonstenographic student, this curriculum guide is for use by teachers of part-time cooperative classes in vocational office training and clerical office practice for non-working students. The material was developed at a state workshop for vocational office training coordinators for use in senior high and area vocational schools. Operating procedures, class organization and instructional plans, program development activities, coordination activities, suggestions for organizing clerical office practice classes, room layout and equipment, evaluation, and unit outlines are included. The units are (1) Job Orientation, (2) Securing, Holding, and Advancing in a Position, (3) Handling the Mail, (4) Using Communication Services, (5) Using Transportation Services, (6) Correspondence Filing, (7) Receiving Office Callers, (8) Secretarial Procedures, (9) Stencil Duplicating Machines, (10) Spirit Duplicating Machines, (11) Ten-Key Adding-Listing Machines, (12) Rotary Calculators, (13) Key-Driven Calculators, (14) Machine Bookkeeping, (15) Payroll Problems, (16) Machine Transcription, (17) Production Typewriting Problems, and (18) Auditing and Verifying. Each unit gives suggested time range, purposes, materials and supplies needed, a course outline, references, teaching methods, and evaluation procedures. Other guides in the series are VT 000 654 and VT 000 655. This document is available for \$1.50 from Business Education Service, State Department of Education, State Office Building, Richmond, Virginia 23216. (PS)

VT 000 652

Report of the Fifth Annual Business Education Workshop in Business Systems and Data Processing (University of Dayton, Ohio, June 14-July 2, 1965).

Kriegbaum, Robert E.
Dayton Univ., Ohio

Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 121p.

*DATA PROCESSING, *BUSINESS EDUCATION, *CURRICULUM GUIDES, SENIOR HIGH SCHOOLS, BIBLIOGRAPHIES, INSTRUCTIONAL MATERIALS, *TEACHING GUIDES,

The goal of the workshop was to prepare a 2-year data processing curriculum for high schools. Participants included 29 high school and post-high school business education teachers and administrators. Instructional units developed in the workshop are: (1) Introduction to Business Data Processing, (2) Basic Office Machines, (3) Personal Development, (4) Key Punch and Verifier, (5) Sorter, (6) Functional Wiring, (7) Interpreter, (8) Collator, (9) Related Mathematics, (10) Card and Forms Design, (11) Systems Development, (12) Accounting (Machine Oriented), (13) Reproducer, (14) Accounting Machine, (15) Calculating Punch, and (16) Introduction to Computers. Each unit generally includes a definition or description, goals or objectives, and basic concepts or a course outline. An extensive list of films and a bibliography of textbooks, manuals, and general references are given. (PS)

VT 000 654

Teaching Guide in Business Education. Part IV, Shorthand-Transcription, Suggested Content, Instructional Procedures and Achievement Goals for Virginia High Schools.

Virginia State Board of Educ., Richmond. Bus Educ Service

Pub Date - 60
MF AVAILABLE IN VT-ERIC SET. 50p.

*CURRICULUM GUIDES, *TEACHING GUIDES, *OFFICE OCCUPATIONS EDUCATION, *STENOGRAPHY, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION, POST SECONDARY EDUCATION,

This guide is a handbook of accepted teaching procedures for teacher use in a 1 or 2-year shorthand-transcription course for students in high school, area vocational school, and adult or community college programs. It was developed by a committee of business educators at the state level, tested for 1 year in local schools, and revised. Part One, Course Administration, covers the stenographic curriculum, need for training, objectives, who should take the course, length of course, prerequisites, grade placement, credit, room layout and equipment, and shorthand systems. Part Two, Methods of Teaching Shorthand-Transcription, covers pre-transcription training, transcription training, methods of teaching shorthand, student activities, dictation, homework, development of personality and character traits, testing, achievement standards, evaluation, course content, and miscellaneous teaching tips. Student and teacher references are included in the bibliography. Other guides in this series are VT 000 655 and VT 000 609. This document is available for \$1.50 from Business Education Service, State Department of Education, State Office Building, Richmond, Virginia 23216. (PS)

VT 000 655

Business Education. Part II, Typewriting, Suggested Content, Instructional Procedures and Achievement Goals for Virginia High Schools. Bulletin, Volume 45, Number 10.

Virginia State Board of Educ., Richmond. Bus Educ Service
 Pub Date - Mar62
 MF AVAILABLE IN VT-ERIC SET. 192p.

*CURRICULUM GUIDES, *TEACHING GUIDES, *BUSINESS EDUCATION, HIGH
 SCHOOLS, *TYPEWRITING, ADULT VOCATIONAL EDUCATION, POST SECONDARY
 EDUCATION,

This curriculum guide is for teacher use in planning a three-semester typewriting course for students in junior or senior high schools, adult programs, area vocational schools, or junior colleges. It was developed by a group of business educators organized by the State Business Education Service, tested for 1 year and edited. The material of the first two semesters aims primarily at building skills for personal-use or prevocational typing. The third semester is vocational typewriting with emphasis on production work. Each of the 30 units on how to teach typewriting includes a statement of the problems, references, detailed pupil-teacher activities, and pupil goals. Representative units are (1) What to Do the First Day, (2) How to Develop Typewriting Power, (3) Simple Centering, (4) Typewriting Letters, (5) Typewriting Manuscripts, (6) How to Fill in Forms, (7) Duplicating Typewritten Material, (8) Outline and Illustrations of Legal Documents, and (9) Electric Typewriting. The material to be used by the teacher for three semesters for 5 days a week in a 50-55 minute period a day. Discussions of course administration and the instructional are included. Other guides in this series are VT 000 609 and VT 000 654. This document is available for \$1.50 from Business Education Service, State Department of Education, State Office Building, Richmond, Virginia 23216. (PS)

VT 000 686

Developing Resource Files for Introduction to Business.

Satlow, I. David
 New York State Ed Dept, Albany. Bur of Sec Curriculum Dev
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 29p.

*RESOURCE GUIDES, *BUSINESS EDUCATION, *RESOURCE MATERIALS, HIGH
 SCHOOLS,

This guide was developed for teachers of Introduction to Business who have frequently expressed a need for assistance in locating, filing, and organizing resource materials for class use. The suggestions given are applicable to other business subject-matter areas as well and cover the scope of a resource file and sources of materials. The materials were developed by supervisors in the Bureau of Business and Distributive Education at the state level. Names and addresses are given for business education publications, periodicals, trade associations, leading film guides, film servicing organizations, and handbooks and yearbooks containing background materials. This document is available for 25 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 000 879

ED 017 635

O. E. Individual Instruction Materials. Supplement.

Iowa State Dept. of Public Instr., Des Moines
 266V-109VE
 Pub Date - Feb66
 EDRS PRICE MF-\$0.25 HC-\$0.36 7p.

*BIBLIOGRAPHIES, *INSTRUCTIONAL MATERIALS, *INDIVIDUAL INSTRUCTION,
 *OFFICE OCCUPATIONS EDUCATION,

Prepared for teacher-coordinators of office education, this bibliography includes 53 titles with names and addresses of publishers. Materials are included for typing, business arithmetic, business English, civil service training, data processing, shorthand, business machines, income tax, insurance, human relations, and spelling. Brief annotations are given. This document supplements VT 000 424. (PS)

VT 001 097

Introduction to Automatic Business Data Processing, A Supplement for Teachers of Bookkeeping.

Conover, Hobart H.
 New York State Ed Dept, Albany. Bur of Sec Curriculum Dev
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 52p.

*CURRICULUM GUIDES, *BUSINESS EDUCATION, *ELECTRONIC DATA
 PROCESSING, *BOOKKEEPING, HIGH SCHOOLS,

This guide is for teacher use in introducing the basic concepts of automatic business data processing in Bookkeeping 1 and 2 classes. It was developed by a group of high school and college business teachers following the recommendations of a state advisory committee. Teaching guides are included for the units--(1) punch card format, (2) sorting punched cards, (3) recording alphabetic information, (4) taking physical inventory, (5) cash sales, (6) sales on account, (7) accounts receivable, balances, schedules, and statements, (8) accounts payable, (9) the computer in the sales/accounts receivable cycle, and (10) payroll data processing. Each unit contains a reference to a specific New York State syllabus topic and illustrations of punched card format and/or flowcharts. A bibliography and lists of supplementary source materials, films, and filmstrips are included. This document is available for 50 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 001 155

Bookkeeping 1 and Bookkeeping 2, Syllabus.

New York State Educ Dept, Albany. Bur of Bus and Dist Ed
 Pub Date - 64
 MF AVAILABLE IN VT-ERIC SET. 56p.

*CURRICULUM GUIDES, *TEACHING GUIDES, *BUSINESS EDUCATION,
 *BOOKKEEPING, HIGH SCHOOLS,

This guide is for teacher use in planning a first- and second-year course in bookkeeping for high school students. It was

developed by a committee of high school bookkeeping teachers and teacher educators at the state level, pilot tested, and revised. Bookkeeping 1 covers (1) assets, liabilities, and capital, (2) income and expense, (3) ledger accounts, (4) assets and capital accounts, (5) merchandise accounts, (6) receivables, (7) payables, (8) cash discounts, (9) interest on interest-bearing notes, (10) miscellaneous income, (11) journals and control accounts, (12) trial balance with control accounts, (13) petty cash system, (14) payroll taxes, (15) balance sheet and profit and loss statement, and (16) adjusting and closing entries. Bookkeeping 2 covers (1) payrolls, (2) negotiable business papers, (3) uncollectible receivables, (4) depreciation, (5) financial statements, (6) interpretation of financial statements, (7) adjusting and closing entries, (8) partnership, (9) corporation, (10) taxes, and (11) bookkeeping systems. A content outline and teaching suggestions are given for the course. This document is available for 75 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 001 156

Syllabus and Teaching Suggestions for a Course in Office Practice, Grades 11 and 12.

Jochumsen, Elna * and others
New York State Educ Dept, Albany. Bur of Bus and Dist Ed
Pub Date - 64
MF AVAILABLE IN VT-ERIC SET. 139p.

*CURRICULUM GUIDES, *BUSINESS EDUCATION, *OFFICE OCCUPATIONS,
*OFFICE PRACTICE, GRADE 11, GRADE 12,

This curriculum guide is for teacher use in planning a 1- or 2-year course for students in grades 11 or 12 who have completed 1 year of typewriting and who are interested in the nonstenographic and nonbookkeeping office occupations. It was developed by a committee of office practice teachers and state staff members, used in selected pilot schools, and revised. The guide includes an office practice philosophy, methods of presenting the work, a brief outline of units of instruction, and suggests flexible standards of achievement. Outlines are given for the six basic units: (1) Typewriting, (2) Machine Transcription, (3) Duplicating, (4) Machines (adding and calculating), (5) Filing, and (6) Office Practice and Procedures. Separate outlines are presented for use at the acquaintanceship, practical use, and vocational competency levels. Seven additional units are suggested where employment conditions justify the offerings: (1) Duplicating (other processes), (2) Cashiering, (3) Machine Transcription (newer transcribing machines), (4) Bookkeeping and Banking, (5) Billing, (6) Card Punch and Tabulating, and (7) Advanced Clerical Skills. Administrative considerations, class organization, and methods of instruction, and miscellaneous information are included. This document is available for 75 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York. (PS)

VT 001 157

Business Arithmetic, Syllabus.

Batterson, George W. * and others
 New York State Educ Dept, Albany. Bur of Bus and Dist Ed.
 Pub Date - 63
 MF AVAILABLE IN VT-ERIC SET. 90p.

*CURRICULUM GUIDES, *TEACHING GUIDES, *BUSINESS EDUCATION, GRADE 10, *ARITHMETIC,

This guide is for teacher use in planning a 1-year course in business arithmetic at the 10th grade level. It was developed by a committee of teachers at the state level, pilot tested in high schools, and revised. The units are (1) Fundamentals Refresher, (2) Computing Interest, (3) Reconciling Bank Balances, (4) Taking Trade Discounts, (5) Taking Cash Discounts, (6) Determining Selling Prices, (7) Arriving at Commissions, (8) Finding Bank Discount, (9) Computing Social Security Taxes, (10) Preparing Payrolls, (11) Figuring the Cost of Property Insurance, (12) Computing Depreciation, (13) Distributing Partnership Profits, (14) Financing on the Installment Plan, (15) Checking on the Cost of Utilities, (16) Investing in Stocks and Bonds, (17) Owning Your Own Home, (18) Verifying Property Taxes, (19) Reading Tables, (20) Handling Graphs, (21) Understanding Numeration Systems, and (22) Integrating Problems. Each unit contains a broad outline of content, suggestions for teaching each topic, and sample illustrative problems accompanied by solutions. Two forms of basic arithmetic ability appraisal instrument and suggestions for its use are included. The appraisal was administered to a representative sample of 900 beginning business arithmetic students in 17 schools in different parts of the state, and the results were used to obtain the percentile equivalents and the mastery indexes included. This document is available for \$1.00 from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 001 156

Idea Stimulators for Introduction to Business; Suggested Class Projects.

Bayer, Theodore J. * and others
 New York State Educ Dept, Albany. Bur of Bus and Dist Ed.
 Pub Date - 63
 MF AVAILABLE IN VT-ERIC SET. 97p.

*STUDENT PROJECTS, *TEACHING GUIDES, *BUSINESS EDUCATION, HIGH SCHOOLS, RESOURCE MATERIALS, BIBLIOGRAPHIES, *MOTIVATION TECHNIQUES, TEACHING TECHNIQUES,

The student should learn the principles of a sound savings program, how to invest money wisely, how to use credit judiciously, and how to protect himself against financial risks common to most persons. To achieve these and other objectives, the teacher of introduction to business must be prepared to stimulate the imagination of students of widely divergent abilities. This brochure contains a variety of projects and classroom techniques that teachers may adapt to their classes. The materials were compiled by a committee of business teachers at the state level. Projects are included for (1) the meaning of business, (2) communication, (3) savings and investments, (4) insurance, (5) bank services, (6) travel information and facilities, (7) recording and filing, (8) types of business ownership, (9) organization for management, (10)

purchasing, (11) methods of payment, (12) selling, and (13) vocational guidance. Each project includes procedural steps and suggested activities. Descriptions of other classroom techniques and procedures, a list of related films and filmstrips, and an annotated reference list are included. This document is available for 75 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 001 224

Introduction to Business Syllabus.

New York State Educ Dept, Albany. Bur of Bus and Dist Ed.
 Pub Date - 63
 MF AVAILABLE IN VT-ERIC SET. 122p.

*TEACHING GUIDES, *CURRICULUM GUIDES, *BUSINESS EDUCATION, GRADE 9, BIBLIOGRAPHIES, GRADE 10,

This guide is for teacher use in planning an introduction to business course for 9th or 10th grade students. It was developed by a committee of experienced high school teachers for use by regular teachers of business subjects. The major aim is to develop broad economic concepts that will help the student carry on a sound savings program, invest his money wisely, protect himself against common risks, use credit judiciously, and become a better home manager and citizen. A contents outline, suggested teaching procedures and student activities, and a bibliography are given for the following topics: (1) Meaning of Business, (2) Communication, (3) Thrift, Savings, and Investments, (4) Insurance, (5) Bank Services, (6) Travel Information and Facilities, (7) Recording and Filing, (8) Types of Business Ownership, (9) Organization and Management, (10) Purchasing, (11) Methods of Payment, (12) Selling, and (13) Guidance--Educational and Vocational. The material is designed to be used with a standard text in a 1-year course. This document is available for 75 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 001 226

Introduction to Automatic Business Data Processing, A Supplement for Teachers of Introduction to Business or Business Management.

New York State Ed Dept, Albany. Bur of Sec Curriculum Dev
 Pub Date - 66
 MF AVAILABLE IN VT-ERIC SET. 37p.

TEACHING GUIDES, BUSINESS EDUCATION, UNITS OF STUDY (SUBJECT FIELDS), ELECTRONIC DATA PROCESSING, *BASIC BUSINESS EDUCATION, HIGH SCHOOLS,

This guide is for teacher use in planning an instructional unit on automatic business data processing for inclusion in an introduction to business or business management course. It was developed by a committee of teachers, a teacher trainer, and a college department head at the state level. This proposed unit of study on data processing presents the history of its growth, its effect on the

economy, terms peculiar to the field, functions performed by new data processing equipment, and the job opportunities emerging in the field. An outline of unit content and teaching suggestions are included. The appendix includes a flowchart, flow diagram, line and staff organization of a business, symbols for communication, and displays of Remington Rand and IBM card codes. Suggested resource materials and films are listed. This document is available for \$1.25 from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 001 446

Teaching Business Data Processing in High School Office Practice and Post-High School. Report of the Business Education Workshop in Business Systems and Data Processing (6th, Jun 13-July 1, 1966).

Kriegbaum, Robert E.

Dayton Univ., Ohio.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 173p.

*ELECTRONIC DATA PROCESSING, *BUSINESS EDUCATION, *TEACHING GUIDES, HIGH SCHOOLS, POST SECONDARY EDUCATION, OFFICE PRACTICE,

Twenty-one business teachers in a business education workshop developed the teaching units related to data processing for use by business teachers of high school office practice classes and for business teachers on the post-high school level. Units to be presented in 25 to 30 hours to high school seniors in an office practice course are: (1) the history of data processing, (2) basic operations in processing information, (3) manual, mechanical, and punched card methods of processing information, (4) equipment used to process punched cards, (5) integrated data processing, (6) uses and components of computers, (7) flow charts, (8) programing, (9) the binary system, and (10) career opportunities in automated data processing. A one-semester course in data processing on the post-high school level includes the units: (1) Need for Data Processing Information, (2) Evaluation and Development of Data Processing, (3) Systems and Procedures, (4) Data Processing Hardware, and (5) Methods, Materials, and Resources. Suggested evaluation techniques including two case studies and a bibliography are included. These units were designed for use in classes where there is no equipment or very limited equipment available. (PS)

VT 001 529

Business Training.

Modesto Junior College, Calif.

Pub Date - May66

MF AVAILABLE IN VT-ERIC SET. 14p.

*CURRICULUM GUIDES, *PROGRAM PLANNING, *BUSINESS EDUCATION, *BANK TELLERS, *BANKING, ADULT VOCATIONAL EDUCATION,

The purpose of the project was to prepare unemployed adults to meet the performance standards and personal requirements necessary to enter employment as bank tellers and to perform successfully on a

continuing basis in such a position. The course developed for the project ran for 10 weeks, 6 hours a day, for a total of 300 hours. The course of study was based on suggestions from an advisory committee composed of representatives from four banks, the Department of Employment, and the business training section of the Modesto Junior College. The major units were (1) Basic Skills Development, (2) Communications, (3) Customer Relations and Personal Grooming, (4) General Banking Procedures, and (5) Banking Business Machines. The background of trainees, source and selection of trainees, background of the teacher, equipment used, standards of performance, teaching methods, and the field trip of the class are briefly described. One month after completing the course, seven of 17 members of the class were employed in a training related job, and one was employed in a non-related job. Copies of this document are available from Adult Division, Modesto Junior College, Modesto, California 95350. (PS)

VT 004 297

Syllabus and Teaching Handbook for Courses in Shorthand 1, Shorthand 2, Transcription, Personal-Use Shorthand.

New York State Ed Dept, Albany. Bur of Sec Curriculum Dev

Pub Date - 67

MF AVAILABLE IN VT-ERIC SET. 138p.

*TEACHING GUIDES, *OFFICE OCCUPATIONS EDUCATION, *STENOGRAPHERS, *STENOGRAPHY, HIGH SCHOOLS,

This guide is for teacher use in planning and teaching Shorthand 1 and 2 and Transcription. It was developed by a group of high school teachers with college and state department consultants. The content includes (1) administrative considerations, (2) suggested supplies, equipment, and physical facilities needed for beginning and advanced shorthand, (3) goals for reading, writing, penmanship, and transcription for the first and second semesters of Shorthand, (4) goals for learning theory rules, reading, writing, and transcription for the third semester of Shorthand, (5) goals for developing speed, office style dictation, and standards in the fourth semester of Shorthand, and (6) aims, standards, mailability, work habits, proofreading, and specific teaching suggestions for Transcription. Shorthand 1 and 2 and Transcription classes are each required to meet a minimum of four or five periods a week for two semesters. Many references and excerpts from the writings of individuals who are considered authorities on shorthand are presented throughout the syllabus as general guides. An author and subject index is included. This document is available for 75 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (PS)

VT 004 778

ED 017 721

Filing and Related Occupations, A Suggested Curriculum Guide.

Office of Education, Washington, D.C.

South-Western Publishing Co., Cincinnati, Ohio

Pub Date - 67

EDRS PRICE MF-\$0.50 HC-\$4.44 109p.

*CURRICULUM GUIDES, *OFFICE OCCUPATIONS EDUCATION, CURRICULUM,
 *CLERICAL OCCUPATIONS, *FILE CLERKS, RECORDKEEPING, BIBLIOGRAPHIES,
 *PROGRAM PLANNING, INSTRUCTIONAL MATERIALS,

Suggested curriculums provide a guide for training qualified workers in handling business papers, performing filing and retrieval operations, and preparing reports. The guide should be of assistance to administrators, supervisors, and teachers in developing and organizing training programs. The materials were prepared by the staff of South-Western Publishing Company under contract with the U.S. Office of Education. The course of study for each of nine office occupations has been planned to provide the specific skills and knowledge needed for employment, and to give each trainee some background in office fundamentals. Class hours, objectives of the unit, teaching tips, topic outline, and suggested texts and other teaching materials are presented for 12 general and five specialized office education units for the occupations (1) cut man (printing and publications), (2) file clerk I, (3) record clerk, (4) file clerk II, (5) classification clerk, (6) librarian (printing and publications), (7) fingerprint clerk (banking), (8) records custodian (banking), and (9) brand recorder (government service). Six administrative office education units are provided for additional training required by supervisors, managers, and officials. Job descriptions and prerequisites for training and employment are shown for each occupation. Suggested standards of student achievement, guidance and aptitude tests available, sources of educational materials, typical facilities layouts, and suggested equipment are included in the appendixes. (PS)

VT 004 842 ED 019 484
 Stenographic, Secretarial, and Related Occupations, A Suggested Curricula Guide.

Off of Ed (DHEW), Washington, D.C. Div of Voc and Tech Ed
 OE-86011
 Pub Date - 67
 EDRS PRICE MF-\$1.00 HC NOT AVAILABLE FROM EDRS. 199p.

*CURRICULUM GUIDES, *OFFICE OCCUPATIONS EDUCATION, TEACHING GUIDES,
 *SECRETARIES, *STENOGRAPHERS, CURRICULUM, HIGH SCHOOLS, POST
 SECONDARY EDUCATION, *PROGRAM GUIDES, OCCUPATIONAL INFORMATION,

The purpose of this guide is to assist those involved in administering full-time, part-time, refresher and upgrading, and manpower development and training programs in stenographic, secretarial, and related office occupations in high schools, post-secondary, and special schools. It was prepared by C.E. Leslie and Associates under contractual arrangements between the U.S. Office of Education and McGraw-Hill, Inc. Job descriptions, occupational prerequisites, and suggested training are given for clerk-stenographer, court reporter, note reader or stenotype operator, steno-pool supervisor, engineering stenographer, foreign-language stenographer, legal stenographer, medical stenographer, police stenographer, print shop stenographer, public stenographer, scientific stenographer, education secretary, engineering secretary, executive secretary, foreign-language secretary, legal secretary, medical secretary, police department secretary, scientific secretary, and social secretary. Thirty-two general, 23 specialized, and five administrative office education

units are provided for the suggested training. Each presents class hours, teaching suggestions, standards of student achievement, prerequisites, topic outlines, and suggested texts and other teaching materials. A suggested lesson plan, physical facilities requirements, an example of a typical layout of classrooms and laboratories, and sources of educational materials are included in the appendix. This document is available as FS5.286--86001 for \$1.50 from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (PS)

VT 004 857

Automation and Business Data Processing, Source List.

Kentucky Univ., Lexington. Instructional Materials Lab.

Pub Date - (65)

MF AVAILABLE IN VT-ERIC SET. 12p.

*BIBLIOGRAPHIES, *ELECTRONIC DATA PROCESSING, *INSTRUCTIONAL MATERIALS, *OFFICE OCCUPATIONS EDUCATION,

A list of materials and references is presented for teachers desiring (1) to obtain a background in data processing principles, (2) to organize an introductory course at the high school, area vocational school, or junior college level, or (3) to integrate an acquaintanceship with automation and business data processing with other business classes. The items, containing title, address, price, and a brief description, are categorized under (1) Curriculum and Course Content Planning, (2) Teacher References, (3) Materials to Use with Students, (4) Tabulating Equipment Operation, (5) Key punch Operation, (6) Bookkeeping, (7) Business Mathematics, (8) Office Practice, (9) Typewriting and Shorthand, (10) Guidance, (11) Audiovisual Aids, (12) Data Processing Organizations, and (13) Magazines. (PS)

VT 004 924

Office Practice, General Business. Unit--Careers in Business and Office Occupations.

Sparks, Mavis C.

Kentucky Univ., Lexington. Instructional Materials Lab.

Pub Date - Sep67

MF AVAILABLE IN VT-ERIC SET. 70p.

*TEACHING GUIDES, UNITS OF STUDY (SUBJECT FIELDS), *BUSINESS EDUCATION, *CAREER PLANNING, HIGH SCHOOLS, POST SECONDARY EDUCATION, BIBLIOGRAPHIES, RESOURCE UNITS,

This resource unit is for teacher use in planning approximately five lessons for high school or post-high school programs in general business or office practice classes, but it may be used as a supplementary unit in any business course. The major content objective is to assist the student in selecting a business position suited to his interests and abilities. It was developed by a subject matter specialist in business education at the state level. Suggested content, teaching-learning activities, instructional materials, and references are given for the following topics: (1) To understand the role of business in our democratic society, (2)

To appreciate and intelligently appraise the world of work, (3) To have a general knowledge of all types of business and office occupations, (4) To intelligently appraise self in terms of occupational opportunities in the business world, (5) To understand fully the occupation chosen as life's work, (6) To identify the possibilities for training in a chosen occupation, and (7) To understand the employment market. The teacher should be a business education or home economics major with business experience. A comprehensive list of references for teacher use in student guidance and career selection is included. (PS)

VT 005 280

The Pre-Technical Project, A Demonstration in Education for Technology. Business Technology, 11th Year.

New York City Board of Ed, Brooklyn, N.Y. Bur of Curr Dev

Pub Date - Sep67

MF AVAILABLE IN VT-ERIC SET. 371p.

*CURRICULUM GUIDES, *BUSINESS EDUCATION, PROGRAM GUIDES, *TEACHING GUIDES, GRADE 11, EXPERIMENTAL CURRICULUM, *PRETECHNOLOGY PROGRAMS, UNDERACHIEVERS, TEACHING METHODS,

This curriculum guide is for administrator and teacher use in planning a program for underachieving high school juniors in preparation for a career program in business at the community college level. It was developed by a committee of teachers at the local level and revised after class use. Unit outlines are presented for the courses: (1) English, (2) Mathematics, (3) Accounting I and II, (4) Business English, (5) Distributive Education, Stenography I and II, and (6) Typewriting I and II. Each unit gives the topic, objectives, and suggested student and teacher activities. The material is to be used for 16.5 clock hours per week for one year. The program emphasizes a team teaching approach to interdisciplinary correlation of subject matter and a laboratory orientation of the curriculum. See VT 005 281 for the 12th year program. Single copies of this document are available to school systems without charge from Correlated and Pre-Technical Programs, 480 Pacific Street, Brooklyn, New York 11217. (PS)

VT 005 281

The Pre-Technical Project, A Demonstration in Education for Technology. Business Technology, 12th Year.

New York City Board of Ed, Brooklyn, N.Y. Bur of Curr Dev

Pub Date - Sep67

MF AVAILABLE IN VT-ERIC SET. 75p.

*CURRICULUM GUIDES, *TEACHING GUIDES, *BUSINESS EDUCATION, GRADE 12, EXPERIMENTAL CURRICULUM, *PRETECHNOLOGY PROGRAMS, UNDERACHIEVERS, TEACHING METHODS,

This curriculum guide is for teacher use in planning a program for seniors in a comprehensive high school who plan on post-secondary education in business technology. It was developed by a committee of teachers at the local level, tested in classroom use, and revised. Unit outlines are presented for the following 12th grade

courses: (1) pre-technical course in accounting, (2) secretarial studies, (3) pre-technical course in English, (4) office machines, and (5) marketing principles--distributive education. Each unit outline gives objectives and pupil activities and projects. Student selections should be on the basis of academic potential and marginal achievement at the end of grade 10. See VT 005 280 for the curriculum guide designed for grade 11. Single copies of this document are available to school systems without charge from Correlated and Pre-Technical Programs, 480 Pacific Street, Brooklyn, New York 11217. (PS)

VT 005 282

Business Education Curriculum Guide.

Bartlett, Shirley * and others
Alaska State Dept. of Educ., Juneau. Div. of Vocat. Educ.
Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 99p.

*PROGRAM GUIDES, *PROGRAM PLANNING, *BUSINESS EDUCATION, HIGH SCHOOLS, *CURRICULUM,

This program guide was designed for use by administrators and teachers in planning a high school business education program. It was developed by a group of business education teachers of Alaska. The content includes: (1) objectives of the business education curriculum, (2) types of beginning jobs, (3) suggestions for implementing an effective guidance program, (4) guiding principles which may be used in planning and evaluating the business education program, (5) suggested curriculums for clerical, stenographic, bookkeeping, and distributive education for grades 9-12, (6) course descriptions, (7) suggested forms for use in student followup surveys and business surveys, (8) suggestions for facilities and equipment, (9) list of teaching aids and materials, (10) the business teacher's responsibility for public relations, and (11) suggested forms for use in cooperative education. A bibliography and three teaching models illustrating "process as content" are included. (PS)

VT 005 449

Suggested New Curriculum Patterns for Office Occupations Education.
Vol. 50, no. 8.

Virginia State Board of Educ., Richmond. Bus. Educ. Serv.
Pub Date - Feb68
MF AVAILABLE IN VT-ERIC SET. 192p.

*CURRICULUM GUIDES, *OFFICE OCCUPATIONS EDUCATION, *CURRICULUM, HIGH SCHOOLS, ADULT EDUCATION,

Using curriculum guides developed by the U.S. Office of Education as a basis, the Virginia Business Education Service developed new secondary and adult office education curriculum guides designed to overcome some of the major weaknesses of the present programs. The programs are designed for stenographic, typewriting, clerical accounting, filing, data processing, and office duplications

occupational clusters. Suggested curriculum patterns are given for each occupational cluster to show how the units may be developed for use during the junior and senior school years. Topical outlines for each instructional unit give a brief description of purpose, teaching tips, topical listing, and suggested references. The appendixes include (1) suggested standards of student achievement, (2) sources of instructional materials, (3) guidance and aptitude tests available, (4) physical facility layouts, (5) suggested equipment for stenographic, typewriting, automated data processing, general business, and clerical accounting occupations laboratories, and (6) guidelines for establishing the programs. (PS)

DISTRIBUTIVE
EDUCATION
SECTION

VT 000 158

Communications (Oral and Written). Distributive Education Preparatory Series.

Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distributive Educ. Sect.
Pub Date - Sep64
DOCUMENT NOT AVAILABLE FROM EDRS. 179p.

*TEACHING GUIDES, *DISTRIBUTIVE EDUCATION, *COMMUNICATION SKILLS, HIGH SCHOOLS, POST SECONDARY EDUCATION, ADULT VOCATIONAL EDUCATION,

One of a four-manual series with "Personal Qualities" (VT 000 160), "Arithmetic" (VT 000 161), and "Distribution" (VT 000 169), this manual is designed for instructor use in a preparatory course in distribution for high school, junior college, or adult students. It was developed by individual research with an advisory committee under direction of the U.S. Department of Health, Education and Welfare contract. The primary objectives of the manual are to help the student develop both oral and written communication skills needed for success in the field of distribution. Units in oral communications are: (1) Oral Communications Defined and Explained, (2) The Able Man Theory, (3) Characteristics of Oral Communications, (4) Tools of Oral Communications, (5) Planning Oral Communications, (6) Use Oral Communications Effectively, and (7) Reading--Its Place in Communications. Units in written communications are--(1) Why Write, (2) Sentences, End Punctuation, Agreement, (3) Verbs, (4) Nouns and Pronouns, (5) Adjectives and Adverbs, (6) Building a Sentence, (7) Meeting Your Customer, (8) Organizing Your Writing, (9) Writing Accurately, Briefly, and Clearly, and (10) Writing Business Letters. Each unit contains aims and objectives, a unit outline, a list of materials, equipment, and references needed, a teaching outline, suggestions for the teacher, and student passouts. This document is available for \$3.75 or with others in the series for \$9.95 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 000 160

Personal Qualities (For Success in Distribution). Distributive Education Preparatory Series.

Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distributive Educ. Sect.
Pub Date - Sep64
DOCUMENT NOT AVAILABLE FROM EDRS. 57p.

*TEACHING GUIDES, *DISTRIBUTIVE EDUCATION, *WORK ATTITUDES, HIGH SCHOOLS, POST SECONDARY EDUCATION, ADULT VOCATIONAL EDUCATION,

One of a four-manual series with "Communications" (VT 000 158), "Arithmetic" (VT 000 161), and "Distribution" (VT 000 169), this manual is designed for instructor use in a preparatory course in distribution for high school, junior college, or adult students. It was developed by individual research with an advisory committee under direction of the U.S. Department of Health, Education, and Welfare contract. The objective of the manual is to help students develop the personal qualities needed for success in distribution. Units are: (1) The Able Man, (2) Able Man Attitudes, (3) Health and the Able Man, (4) Ethics of the Able Man, and (5) How to Apply for a

Job. The instructor should have knowledge of marketing and distribution, and students should be interested in distribution and planning to enter the field at an entry level position. Each unit contains aims and objectives, a unit outline, a list of materials and equipment needs, a teaching outline, suggestions to teachers, and student passouts. This document is available for \$1.50 or with others in the series for \$9.95 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 000 161

Arithmetic for Distribution. (Distributive Education Preparatory Series).

Texas Univ., Austin. Dept. of Distributive Education
Texas Education Agency, Austin. Distri. Educ. Section
Pub Date - Sep64
DOCUMENT NOT AVAILABLE FROM EDRS. 140p.

*TEACHING GUIDES, *DISTRIBUTIVE EDUCATION, *ARITHMETIC, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION,

This is one of four manuals to be used as teaching guides in preparatory training of persons for an entry level job in the field of distribution at either the high school or adult level. The 16 units include (1) whole numbers, (2) change making, (3) fractions, (4) decimals, (5) percentage, (6) aliquot parts, and (7) weights and measures. Included in each unit are aims and objectives, a list of material and equipment needed, suggestion to the teacher, a teaching outline, tests for drill, and answers to drills. A bibliography lists books and workbooks. "Personal Qualities" (VT 000 160), "Communications" (VT 000 158), and "Distribution" (VT 000 169) are related documents. This manual is available in the set for \$9.95 or separately for \$3.00 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 000 169

Distribution (In Our Economy) Distributive Education Preparatory Series.

Texas Univ., Austin. Dept. of Distributive Education.
Texas Education Agency, Austin. Distributive Educ. Serv.
Pub Date - Sep64
DOCUMENT NOT AVAILABLE FROM EDRS. 87p.

*TEACHING GUIDES, *DISTRIBUTIVE EDUCATION, *MARKETING, HIGH SCHOOLS, POST SECONDARY EDUCATION, ADULT VOCATIONAL EDUCATION,

One of a four-manual series with "Personal Qualities" (VT 000 160), "Arithmetic" (VT 000 161), and "Communications" (VT 000 158), this manual is designed for instructor use in a preparatory course in distribution for high school, junior college, or adult students. It was developed by individual research with an advisory committee under direction of the U.S. Department of Health, Education, and Welfare contract. The objective of the manual is to help the student understand the economic system as related to distribution. Units included are (1) Economics Defined and Explained, (2) Scope

of Our Economy, (3) Concepts of Economics (as they affect distribution), and (4) Career Opportunities in Distribution. The instructor should have a knowledge of economics, marketing, and distribution, and students should be planning to enter the field at an entry level position. The time allocation should be geared to the instructional objectives. Each unit contains aims and objectives, a unit outline, a list of materials, equipment, and references needed, a teaching outline, suggestions to the teacher, and student passouts. This document is available for \$2.50 or with others in the series for \$9.95 from Instructional Materials Laboratory, Distributive Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (MM)

VT 001 167

Retail Selling. A Suggested Outline for an Adult Group.

New York State Educ Dept, Albany. Bur of Bus and Dist Ed.
Bull-92 (Revised).
Pub Date - (63)
MF AVAILABLE IN VT-ERIC SET. 21p.

*TEACHING GUIDES, *CURRICULUM GUIDES, *DISTRIBUTIVE EDUCATION,
*RETAILING, *SALESMANSHIP, ADULT VOCATIONAL EDUCATION,

This course outline is for instructor use in presenting a retail selling course for persons employed by retail stores. It is designed to be taught by a member of the local business community and can be conducted in either a school setting or other appropriate place. It was developed by a committee of education specialists at the state level. The content consists of outlines for four sessions of 2 hours each. The sessions are (1) Selecting and Training Salespeople, (2) Meeting the Customer and Presenting the Merchandise, (3) Overcoming Customers' Objections and Suggestion Selling, (4) Closing the Sale and Supervising Salespeople. Teaching suggestions and a list of books, brochures, pamphlets, and films are included. (MM)

VT 001 227

Distribution 1 and 2 Syllabus.

New York State Ed Dept, Albany. Bur of Sec Curriculum Dev
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 165p.

*CURRICULUM GUIDES, *DISTRIBUTIVE EDUCATION, *TEACHING GUIDES,
*MARKETING, *MERCHANDISING, GRADE 11, GRADE 12,

This curriculum guide is for teacher use in 2 years or 240 hours of classroom instruction in the high school distributive education program. It was developed by a committee of teachers and businessmen at the state level and revised by subject matter specialists. The objectives of education for distribution are to (1) offer instruction in distribution, marketing, and management, (2) aid in improving the techniques of distribution, and (3) develop an understanding of social and economic responsibilities of those engaged in distribution. The 13 unit outlines for Distribution 1 include (1) Marketing Functions and Channels, (2) Consumer Motivation and Behavior, (3) Techniques of Selling, (4) Color, Line, and Design, (5) Fashion--Its Relation to Retailing, and (6) Visual

Merchandising Principles. The 12 unit outlines for Distribution 2 include (1) Leadership Development--The Distribution Education Club Program, (2) Economics of Distribution, (3) Store Organization, (4) Personnel Management, (5) Merchandising, (6) Business Ethics and Law in Retailing, and (7) Professional Improvement and Opportunities. Each unit correlates content and teaching suggestions in two-column form. A bibliography of books, brochures, and films related to each outline is included. The teacher should be a qualified distributive education instructor, and the students should be juniors or seniors with basic communication and arithmetic skills and desirable personality traits. This document is available for \$2.00 from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (MM)

VT 001 228

Handbook for Teachers of Salesmanship.

New York State Ed Dept, Albany. Bur of Sec Curriculum Dev
 Pub Date - 66
 MF AVAILABLE IN VT-ERIC SET. 48p.

*TEACHING GUIDES, *DISTRIBUTIVE EDUCATION, *SALESMANSHIP, HIGH SCHOOLS,

Individuals responsible for preparing a course of study and teachers conducting a course in salesmanship for high school students in distribution may use this guide. It was developed by a committee of secondary and college teachers at the state level. The content objectives are to develop skills and understanding in the broad areas of selling and career opportunities, qualifications of sales personnel, basic selling techniques, and related selling activities. The major sections are: (1) Introduction which includes course objectives and teacher and student qualifications, (2) Teaching Methods which includes teacher demonstrations, role-playing, dramatizing, case problems, audiovisual materials, and guest speakers, (3) Factors Relating to the Effectiveness of the Salesmanship Class, (4) Suggested Content and Projects which includes the field of selling, types of selling jobs, qualifications for selling, basic sales techniques, advertising, and sales promotion and public relations, (5) Suggestions for the Salesmanship Library, and (6) Instructional Aids. The teacher should be a certified business teacher with experience in selling. The time allotment for the course is 60 hours. This document is available for 75 cents from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (MM)

VT 001 273

ED 018 562

A First Look at Distribution.

Washington State Board for Vocat. Educ., Olympia
 Pub Date - Aug66
 EDRS PRICE MF-\$1.25 HC-\$11.36 282p.

*CURRICULUM GUIDES, *TEACHING GUIDES, *DISTRIBUTIVE EDUCATION, MARKETING, GRADE 11, GRADE 12,

This curriculum outline is for teacher use in organizing a two-semester basic course in distribution for grades 11 and 12 in large school districts to complement existing cooperative programs and in small districts where cooperative programs are not feasible. It was developed by a committee of distributive education coordinators at the high school, post-high school, and supervisory levels for preparing the student for his initial job in the field of distribution by familiarizing him with the availability of careers and developing interest in them, and by developing skills, knowledge, attitudes, and habits necessary for success in distributive employment. General objectives, teacher and student characteristics, and administrative considerations are discussed. Content outlines for 24 units are organized into sections titled: (1) Orientation to Distributive Education and the Field of Distribution, (2) Discovering and Developing Personal Resources--Planning for an Occupational Objective, (3) Select a Target, (4) Special Skills and Knowledge for Immediate Use, and (5) Securing and Keeping Employment. Each unit contains objectives, content, development procedures, and a bibliography. A manual for use with this outline, "Participation Experiences, A Handbook for Project Teaching" (VT 004 599) is also available. (MM)

VT 002 462

Salesmanship, A Programmed Text.

Kansas State Teachers Coll., Emporia.

Pub Date - 65

MF AVAILABLE IN VT-ERIC SET. 304p.

*PROGRAMED TEXTS, *DISTRIBUTIVE EDUCATION, *SALES OCCUPATIONS, *SALESMANSHIP, *RETAILING, HIGH SCHOOLS, ADULT VOCATIONAL EDUCATION,

A high school or adult student interested in becoming a salesman at the retail level may use this programed manual to gain a background in salesmanship. The material was developed by business men who were owners or training directors. Units are: (1) Customer Approach, (2) Customer Motivation, (3) Handling Customer Objections, (4) Suggestion Selling, (5) Closing The Sale, (6) Summary, (the steps of a sale), and (7) Product Knowledge. The suggested time allotment is 12 hours. The manual is self-explanatory and self-contained, but a general sales text may be used as a supplement. (MM)

VT 004 599

ED 018 655

Participation Experiences, A Handbook for Project Teaching. A Manual for Use with "A First Look at Distribution," Washington State Distributive Education Course Outline.

Hagenau, E.L. * and others

Washington St Bd for Voc Ed, Olympia. Distributive Ed Div

Pub Date - Jul 67

EDRS PRICE MF-\$0.50 HC-\$3.60 88p.

*DISTRIBUTIVE EDUCATION, *PROJECT TRAINING METHOD, *PROGRAM GUIDES, *TEACHING METHODS, *TEACHING TECHNIQUES, INSTRUCTIONAL AIDS, HIGH SCHOOLS, COMMUNITY RESOURCES,

The purpose of the handbook is to assist the teacher in developing and maintaining student interest at a high level by the use of

realistic, practical, and interesting activities in the project training method in distributive education courses. The manual was developed from recommendations of a special research committee of distributive education teachers under the supervision of a research specialist, to be used with "A First Look at Distribution" (VT 001 273). Some ways to sustain student interest are: (1) Maintain a student-centered classroom, (2) Relate content to future needs and interests, (3) Evaluate individual learning at every step, (4) Use real materials as much as possible, and (5) Provide adequate time for independent activities and skill development processes on an individual basis. The actual participation experiences or projects are classified under directed observation, analysis and evaluating, discussion, and practice. Specific procedures are given for using (1) the individualized study method, (2) multiple project scheduling, (3) community resources, (4) field trips, (5) resource speakers, (6) the case study method, (7) the listening team techniques, (8) brainstorming, (9) research projects and reporting, (10) role playing, (11) business games, (12) the conference method, and (13) visual aids. A bibliography is included. (MM)

VT 004 699

Screen Process Printing, A Tool for Distributive Education.

Patterson, Gerald E. * Barnett, Anna Mae
Ohio State Dept of Ed, Columbus. Distributive Ed Mat Lab.
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 28p.

*DISTRIBUTIVE EDUCATION, *SILK SCREEN PROCESS, *PRINTING,

The purpose of this manual is to encourage distributive education teacher-coordinators to become familiar with the screen printing process and the many uses it can serve in classrooms, public relation efforts, and club activities. For both teacher and student use, the manual was developed by an Ohio distributive education materials consultant and tested in small workshop groups of distributive education coordinators. Information includes--(1) suggested applications, (2) the principle of screen process printing, (3) equipment, (4) construction of the printing screen stencil, (5) preparation of the printing plate, (6) the knife-cut paper stencils, (7) knife-cut film printing stencils, (8) adherence of the cut film to the screen fabric, (9) the printing process, (10) photographic printing screens, (11) principles involved, (12) preparation of the positive, (13) light source, (14) development, and (15) sources of supply. A bibliography, a list of additional resources, and 23 illustrations are included. This document is available for 75 cents from Distributive Education Materials Laboratory, The Ohio State University, 124 West 17th Avenue, Columbus, Ohio 43210. (MM)

VT 005 725

ED (See Jan 68 RIE)

Audio Visual Instructional Materials for Distributive Education;
A Classified Bibliography. Final Report.

Levendowski, Jerry C.
Idaho Univ., Moscow. Dept. of Education.
BR-7-0031

Washington State Univ., Pullman. Dept. of Education.
Idaho State Board of Vocational Education, Boise.
Pub Date - May68
EDRS PRICE MF-\$0.50 HC-\$4.56 112p.

*ANNOTATED BIBLIOGRAPHIES, TRANSPARENCIES, TAPE RECORDINGS, FILMS,
FILMSTRIPS, *DISTRIBUTIVE EDUCATION, *AUDIOVISUAL AIDS,

The bibliography contains a list of 90 names and addresses of sources of audiovisual instructional materials. For each title a brief description of content, the source, purchase price, rental fee or free use for 16MM films, sound-slidefilms, tapes-records, and transparencies is given. Materials are listed separately by topics: (1) advertising and display, (2) business and consumer credit, (3) commodity and stock markets, (4) consumer information, (5) economics, (6) labor-management relations, (7) marketing and merchandising, (8) money and banking, (9) occupational guidance, (10) oral and written communication, (11) personality and attitude development, (12) salesmanship, (13) supervision and human relations, and (14) supporting distributive occupations skills. (MM)

HEALTH
OCCUPATIONS
SECTION

VT 002 079 ED 017 657

Medical Record Technology, A Course of Study Designed for Cooperative Part-Time Students Employed in Medical Record Libraries.

Karnes, James B.

Missouri Univ., Columbia. Dept. of Industrial Education
Missouri State Dep of Educ, Jefferson City. Ind Educ Sect

Pub Date - Aug64

EDRS PRICE MF-\$0.75 HC NOT AVAILABLE FROM EDRS. 136p.

*STUDY GUIDES, *HEALTH OCCUPATIONS EDUCATION, GRADE 11, POST
SECONDARY EDUCATION, ASSIGNMENTS, *COOPERATIVE EDUCATION, STUDENT
RECORDS, *MEDICAL RECORD TECHNICIANS,

Designed for use by eleventh grade cooperative part-time students employed in medical record libraries, this guide may also be used in area vocational or post-high school settings. It was developed by a consultant committee, teacher educators, and research assistants at the state level and revised after use in the field. The content objectives are for student mastery of job skills and procedures, comprehension of information basic to the occupation, and development of essential personal-social traits. Assignment sheets provide basic information, related readings, exercises related to the work situation, and objective-type tests for the areas (1) the medical record librarian and technician, (2) values and uses of the medical record, (3) basic and special medical records, (4) responsibility in record preparation, (5) medical terminology, (6) filing and filing procedures, (7) disease and operation nomenclature, (8) indexing procedures, (9) the "International Classification of Diseases" and data processing procedures, (10) statistical data, (11) legal aspects, (12) interdepartmental relations, and (13) intradepartmental organization. An analysis of medical record technology and progress records to be completed by the employer, teacher, and student are included. The material should be used with related instruction for individual students by a qualified coordinator or competent health occupations teacher. The time allotment is 180 days. This document is available for \$1.50 from Industrial Education, 103 Industrial Education Building, University of Missouri, Columbia, Missouri 65201. (JK)

VT 003 297

Orientation to Health Service Occupations and Nurse Aide Training,
A Course for High School Seniors.

Dyer, Virginia M.

Missouri State Dep of Ed, Jefferson City. Health Service

Pub Date - May66

MF AVAILABLE IN VT-ERIC SET. 25p.

*TEACHING GUIDES, *CURRICULUM GUIDES, *HEALTH OCCUPATIONS
EDUCATION, *VESTIBULE COURSES, *NURSE AIDES, GRADE 12, HIGH
SCHOOLS, PROGRAM DEVELOPMENT,

This guide is for use by teachers and coordinators in planning and teaching a course in the health occupations to high school seniors. The guide was developed by a supervisor of health service occupations with the advice of instructors. The objectives are to

interest the student in the many career opportunities in the health services and to prepare him to perform the functions of a nurse aide. The units are (1) Definitions of Health, (2) Health Team, (3) Principles of Health, (4) Health Maintenance, (5) The Patient, (6) Relationships in the Health Service Occupations, (7) Meeting the Basic Daily Needs of Your Patient in the Hospital, and (8) Careers in Other Health Service Occupations. Parallel columns which relate (1) contents, (2) class period, (3) references, methods, and activities, and (4) objectives and desired outcomes constitute the course outline. The time allotment is three class periods per day or 450-480 hours. The teacher should be a registered nurse. Students should have an interest in and an aptitude for service in the health occupations but ability may vary widely. Also included are: (1) an overview of the course, (2) guidelines for student selection, methods of teaching, evaluation, advisory committee, and cooperating agencies, (3) suggested furnishings, supplies, and teaching aids, (4) sample rotation plans, and (5) a bibliography. (JK)

VT 004 362 MP 000 389
Continuing Education for Dental Hygienists in Current Preventive Techniques. (Boston, June 19-21, 1967).

Hord, Louise W.
Forsyth Dental Center, Boston, Mass.
Pub Date - Jun67
EDRS PRICE MF-\$0.25 HC-\$0.20 3p.

*HEALTH OCCUPATIONS EDUCATION, *DENTAL HYGIENISTS, CERTIFICATION, REFRESHER COURSES,

Thirty-three dental hygienists participated in a 3-day program involving 4 half days of lectures and discussion and 2 half days of clinical practice which dealt with case histories and charting, instrumentation for scaling and curettage, techniques of fluoride application, preventive and interceptive orthodontics, oral rehabilitation, and periodontology. The clinical sessions, supervised by a periodontist and the dental hygiene school staff, provided opportunity for participants to have assistance with problems they were experiencing in their individual positions. Evaluative questionnaires showed that participants felt the course to be adequate for both practicing and nonpracticing hygienists. The program was approved by the Massachusetts Board of Dental Examiners as a refresher course for nonpracticing hygienists who wished to reactivate their licenses. (JK)

VT 004 405
Manual of an Instructional Program in Medical Assisting.

Gilbert, Maud R. * Tyler, Jane
Madison Vocational, Technical and Adult Schools, Wis.
Pub Date - Jun65
MF AVAILABLE IN VT-ERIC SET. 72p.

*MEDICAL ASSISTANTS, *HEALTH OCCUPATIONS EDUCATION, CURRICULUM, *CURRICULUM GUIDES, *PROGRAM GUIDES,

A two-semester program to prepare individuals to assist the physician in his office or clinic is described. General areas discussed are (1) philosophy and objectives, (2) policies relating to admission, scholarship, probation, dismissal, withdrawals, readmissions, transfers, graduation, health program, counseling, scholarships, and loans, and (3) duties of the assistant. The major areas of instruction are (1) orientation and professional conduct-approximately 175 hours, (2) medical theory-approximately 170 hours, (3) medical office secretarial information-approximately 190 hours, (4) medical assisting-225 hours, and (5) laboratory procedures-approximately 200 hours. Course outlines are provided for English, Medical Office Practice and Procedures, Personal and Vocational Relationships, The Human Body in Health and Disease, Medical Terminology, Medical Laboratory Procedures, Clinical Practice in a Physician's Office, and Medical Assisting, Typing, and Filing. Each outline includes credit hours, subject description, objectives, units, texts, references, and educational aids. Appendixes include instructions and forms for affiliating offices, a form for student evaluation of the medical office, a medical terminology list, and a skit on greeting, introducing, and dismissing patients. (JK)

HOME ECONOMICS
EDUCATION
SECTION

VT 000 104

Possible Course Offerings in Occupational Home Economics Education.

Tennessee State Dept of Educ, Nashville. Div of Vocat Ed.

Pub Date - Apr65

MF AVAILABLE IN VT-ERIC SET 13p.

SEAMSTRESSES, CHILD CARE WORKERS, *COURSES, PROGRAM PLANNING, FOOD SERVICE WORKERS, *OCCUPATIONAL INFORMATION, *HOME ECONOMICS SKILLS, *OCCUPATIONAL HOME ECONOMICS, MAIDS,

Examples of occupations using home economics knowledge and skills are given for the following areas: (1) Food Management Production and Service, (2) Care and Guidance of Children, (3) Institutional and Home Management, (4) Clothing Management Production and Service, and (5) Home Furnishings and Equipment Services. The appropriate level for training is indicated. For the following occupations, job descriptions, employment opportunities, personal qualities conducive to success, suggested content, and, in some cases, teaching facilities and work experience are given--child care center aides, child care center assistants, clothing service workers, serving specialists, food service workers, food service and catering assistants, and homemaker's assistants. (EL)

VT 000 122

Curriculum Guide for Home Economics, Grades 7-12.

Roanoke City Public Schools, Va.

Pub Date - 65

MF AVAILABLE IN VT-ERIC SET. 132p.

*CURRICULUM GUIDES, *HOMEMAKING EDUCATION, HOME ECONOMICS SKILLS, JUNIOR HIGH SCHOOLS, SENIOR HIGH SCHOOLS,

Guidelines for teacher use in planning homemaking classes for girls and boys in grades seven to twelve which were developed by a committee of teachers and a supervisor, pilot tested in ten schools and revised are presented. The introductory section contains the developmental task of youth, a statement of belief, and a scope and sequence chart for home economics from the seventh to twelfth grades. Goals and learning experiences are listed for seven courses. A one-year non prerequisite course, Home Economics V, is offered for pupils in the eleventh and twelfth grades. This course is not intended to develop proficiency and skills, but is for personal and family development of individuals. Course content is organized around problems of personal and family living that youth may face in the world of work. Each course prescribes instruction in management, clothing, and foods. The subject matter areas--housing, family relationships, and child development, are suggested for specific courses. A resource list of books, films, and film-strips is included. (FP)

VT 000 348

ED 019 393

A Guide for Teaching Personal and Family Relationships, A Book of Teaching Plans.

Pieretti, Genevieve

Nevada St Dept of Ed, Carson City. Voc, Tech and Adult Ed

Pub Date - Jul63
EDRS PRICE MF-\$0.75 HC-\$5.96 147p.

*TEACHING GUIDES, *HOMEMAKING EDUCATION, *FAMILY RELATIONSHIP,
*PERSONAL RELATIONSHIP, HIGH SCHOOLS,

Unit plans and teaching suggestions in this guide are for use by junior and senior high school homemaking teachers in planning lessons on family relationships for grades 8-12. The material was developed by home economics teachers in a 2-week course at the University of Nevada. The units are: (1) Increasing Understanding of Self, Family, and Friends (eighth grade), (2) Growing Toward Maturity (ninth grade), (3) Family Functions in a Democracy (10th grade), and (4) Looking into the Future, Understanding Yourself and What You Bring to Marriage, Families in Other Cultures, Looking Towards Marriage, Successful Marriage, and The Family in the Community (11th and 12th grades). Each unit includes desired outcomes, a reading bibliography, and teaching plans based on generalizations and concepts. Material for each generalization contains desired outcomes, references, and learning experiences classified according to knowledge, comprehension, application, analysis, synthesis, and evaluation. Also included are (1) a list of desired outcomes, by grade levels and unit titles, (2) conference work materials on family relationships, living in a family, family-community interaction, and values, and (3) a chart illustrating the levels of thinking. Four 11th and 12th grade units available in other Nevada home economics curriculum guides are listed. (BS)

VT 000 485

Home Economics Education for Homemakers, 1965-1966.

Florida St Dept of Educ, Tallahassee. Home Econ. Service

Pub Date - 65

MF AVAILABLE IN VT-ERIC SET. 32p.

*CURRICULUM GUIDES, ADULT EDUCATION, *HOMEMAKING EDUCATION,

Outlines and brief content descriptions are presented for 26 courses offered to adult homemakers in Florida. These are courses for which special instructional units are available. Among the course titles are: (1) Infant Care, (2) Advanced Tailoring, (3) Shortcuts in Meal Preparation, (4) Home Care of the Sick, (5) Furniture Reupholstering, (6) Family Economics, and (7) Establishing a Home. The courses represent all areas of home economics and those topics which are likely to interest the majority of homemakers. (MS)

VT 000 834

Personal and Family Development, A Profile for Teaching Home Economics.

Arizona State Dept. of Vocational Education, Phoenix.

Pub Date - 64

MF AVAILABLE IN VT-ERIC SET. 21p.

*FAMILY LIFE, *HOME ECONOMICS EDUCATION, HIGH SCHOOLS, FAMILY RELATIONSHIP, *INDIVIDUAL DEVELOPMENT, *DEVELOPMENTAL TASKS,

The family life cycle provides a medium by which students think their way toward achieving quality family life. Objectives of home economics include developing competencies to create a home and community environment conducive to the healthy growth and development of all stages of the family cycle, and to perform the task of maintaining a home in such a way that it will contribute effectively to furthering individual and family goals. In order to help teachers achieve these goals, a foldout chart emphasizing family developmental tasks and the developmental tasks of the specific members is presented. The family cycles in terms of years are establishment, child bearing and preschool, school children, teenagers, child launching and empty nest, middle years, and aging. (MS)

VT 003 398 ED 010 321

Program Planning for Home Economics in Secondary Schools in Minnesota, Grades 7-12, A Resource Unit in Foods and Nutrition. Curriculum Bulletin No. 12 A.

Minnesota State Dept. of Education, St. Paul.

Pub Date - 66

EDRS PRICE MF-\$0.75 HC-\$6.72 166p.

*FOODS INSTRUCTION, *RESOURCE UNITS, *CURRICULUM, *NUTRITION INSTRUCTION, *HOMEMAKING EDUCATION, HIGH SCHOOLS,

Curriculum materials to help teachers in developing specific plans for teaching foods and nutrition in grades 7 through 12 are presented. Classroom teachers, supervisors, teacher educators, and curriculum development students contributed to the statewide curriculum project which developed the materials. Major concepts incorporated into the units concern (1) the influence of economic, cultural, physiological, and psychological factors upon the family food pattern, (2) chemical and physical properties of foods and factors affecting their change, and (3) variety and availability of foods, consumer practices, and resources management. A scope and sequence chart outlines course content for grades 7-12. Units included are (1) You and Your Food, grade 7, (2) Creative Foods, grade 8, (3) The Science of Food, grade 9, and (4) Importance of Food, advanced grades. Each unit contains an introductory statement, objectives, generalizations and concepts, content, learning experiences, and evaluation ideas. The appendix contains references, audiovisual sources, bulletin board ideas, an equipment list, a safety checklist, a chart of four suggested levels of learning in food preparation, and forms for use in home experiences, laboratory and meal evaluation, and meal planning. This document is available for \$1.45 from Document Section, State Department of Education, Room 140, Centennial Office Building, 658 Cedar Street, St. Paul, Minnesota 55101. (FP)

VT 003 535

Guidelines for Home Economics in Alaska.

Walsh, Ann, ed.

Alaska State Dept. of Educ, Juneau. Div. of Vocat. Educ.

Pub Date - (66)

MF AVAILABLE IN VT-ERIC SET. 162p.

*CURRICULUM GUIDES, CURRICULUM, *TEACHING GUIDES, *HOME ECONOMICS EDUCATION, HIGH SCHOOLS,

Teachers may use this resource guide in selecting appropriate materials for home economics classes, grades 7 through 12. A revision of the 1963 guide, it was prepared by teachers, supervisors, and teacher educators of home economics education at the state level to develop and improve the vocational home economics curriculum. The philosophy of home economics in the secondary school, characteristics of the various ages and their implications for the curriculum, the levels of generalizations and learning experiences, and a guide for determining scope and sequence are discussed. Suggested course outlines are given for Seventh and Eighth Grade Home Economics, Home Economics I and II, Family Relationships, Child Development and Guidance, Home Management, Housing and Home Furnishings, Advanced Foods and Nutrition, Advanced Clothing and Textiles, and Family Living. The major part of the document presents curriculum materials for management, human development or interpersonal relations, and related art. Each section is on different colored paper, and each is organized in parallel columns of generalizations and learning experiences. Teacher and student bibliographies and six pages of selected resources are included. (FP)

VT 003 750 ED 019 469
Guide for Training School Lunch Personnel.

New York St Ed Dep, Albany. School Lunch Supervision Sect
Pub Date - 65
EDRS PRICE MF-\$0.50 HC-\$4.44 109p.

*PROGRAM GUIDES, *CURRICULUM GUIDES, *TEACHING GUIDES, *FOOD SERVICE WORKERS, *LUNCH PROGRAMS, ADULT VOCATIONAL EDUCATION,

A committee of school lunch supervisors and directors developed this guide to assist school lunch leaders in planning effective local training programs for food service employees. The contents include: (1) Planning for Inservice Training which covers workers and program needs, school policies affecting programs, available resources, ways to finance the program, evaluation, suggested evaluation techniques, and trainee self-evaluation questions, (2) Suggested Topics for Training which provides suggested learning activities, resource materials, and in some cases, supplemental attachments for understanding the total program, planning nutritious menus, improving management practices, using and caring for equipment, and preparing and serving the school lunch, (3) Effective Use of a Variety of Methods and Resources in Training Adults which includes guidelines for teaching adults, characteristics and attitudes of adult learners, some ways in which adults learn, selecting methods and resource materials, characteristics of appropriate methods and resources, and teaching methods. This document is available for \$1.25 from Publications Distribution Unit, State Education Department, Room 169, Education Building, Albany, New York 12224. (EM)

VT 004 308
Curriculum Guide for Food Service Instructional Programs in Pennsylvania.

Eifler, Ann G. * and others
 Pennsylvania State Dept of Public Instruction, Harrisburg
 Pub Date - 67
 MF AVAILABLE IN VT-ERIC SET. 50p.

*OCCUPATIONAL HOME ECONOMICS, *PROGRAM DEVELOPMENT, *CURRICULUM GUIDES, *FOOD SERVICE OCCUPATIONS, HIGH SCHOOLS, TECHNICAL EDUCATION,

Guidelines to aid local school districts in developing programs for preparing food service workers within a comprehensive high school or an area technical school are presented. Some general beliefs basic to program planning are--(1) Home economics has a significant role in teaching food service, (2) School programs can train effective workers in on-the-job training, (3) Teachers must have experience and competency in food service, and (4) Advisory committees are required when programs are directed toward employment. Major sections of the guide are (1) Initial Procedures which includes needs for the program, program organization, length of course, scheduling, a suggested program of studies, financing, facilities and equipment, and teacher qualifications, (2) Program Development which includes objectives, job description and spectrum, employment, opportunities, trainee qualifications, advisory committees, work experience and on-the-job training, products marketing, job placement, and evaluation and followup, and (3) Curriculum Guides and Resources which includes units of instruction containing objectives, generalizations, and learning experiences for the key concepts--the food service industry, sanitation, terminology, equipment, techniques and procedures, nutrition, basic preparation, costs, human relations, work experience, job responsibilities, employment qualifications, and obtaining employment. The appendix includes (1) a list of selected sources of information, (2) student, employer, and graduate followup report forms, (3) floor plans, and (4) "Dictionary of Occupational Titles" numbers for food service occupations. (FP)

VT 004 959 ED 017 732
Innovation in Home Economics.

National Educ. Assn., Washington, D.C. Dept. of Home Econ
 Pub Date - 67
 EDRS PRICE MF-\$0.25 HC NOT AVAILABLE FROM EDRS. 35p.

*HOME ECONOMICS EDUCATION, *CLOTHING, *MARRIAGE, *MONEY MANAGEMENT, PROGRAM PLANNING, *TEACHING GUIDES, MALES, GRADE 11, GRADE 12, INSTRUCTIONAL INNOVATION,

This guide is for teacher use in planning a short course in home economics program for 11th and 12th grade boys and girls. It was developed by Arlington County Schools, Virginia, and the content was determined by a committee of home economics teachers, a principal, and a few selected students. The objective of the course is to provide a series of lessons in group problem solving to meet individual needs and interests of high school students. Short-term non-credit courses of 9-15 lessons are offered when the students would ordinarily be in the study hall and were designed to require no outside preparation. Clothing for Young Men was designed to develop good judgment in selecting and skill in caring for clothes. Personnel from men's clothing shops participated in the course.

The major areas covered are a good appearance, purposes of clothes, wardrobe planning, coordinating and accessorizing, and care and repair of clothes. Preparation for Marriage emphasizes the need for understanding of self, the importance of objective study of marriage and family life, and the value of training for both a career and marriage and parenthood. Spending Money Wisely, designed to help prepare students for the demanding role of the modern consumer, stresses how to obtain adequate information about intended purchases, gives guidance about selecting specific products, and encourages students to develop a sound philosophy about money. Each course is divided into subtopics, and content is presented in brief sentences and phrases. Resources are listed for each course. This document is available for \$1.00 from Department of Home Economics, National Education Association, 1201 Sixteenth St., N.W., Washington, D.C. 20036. (FP)

VT 005 290

Guidelines for Home Economics Education in Wyoming Junior and Senior High Schools. Curriculum Bulletin No. 1.

Gillespie, Myrtle * and others
Wyoming State Dept of Educ, Cheyenne. Vocat.-Tech. Div.
Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 45p.

*CURRICULUM GUIDES, *HOME ECONOMICS EDUCATION, JUNIOR HIGH SCHOOLS, SENIOR HIGH SCHOOLS, PROGRAM PLANNING,

Materials for administrator and teacher use in planning home economics programs for junior and senior high school students were revised by state supervisors, teacher educators, and classroom teachers. The professional, curricular, and environmental criteria and the Wyoming State Board of Education Standards are listed. A flow chart depicts the vocational home economics course framework. Comprehensive high school course descriptions for grades 8 to 12 contain the theme, time allotment, and a topical list which refers to appropriate Wyoming Curriculum Bulletins. Content, references, and time estimates are given for semester course units for food and nutrition, child development, housing and home furnishings, clothing and textiles, family living, and management of personal and family resources. Resource materials, a schema of educational objectives and extended learning experiences are included. (FP)

VT 005 621

Feminine Finance.

National Educ. Assn, Washington, D.C. Dept. of Home Econ.
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 23p.

*HOME ECONOMICS EDUCATION, *CONSUMER ECONOMICS, *TEACHING GUIDES, RESOURCE MATERIALS,

This packet is for homemaking teacher use in planning lessons to teach people of all ages to make wise decisions about using money. Materials are in leaflet form and can be used independently or collectively for a course, unit, or lesson. Titles of leaflets are

(1) Teacher's Guide, which includes reasons for teaching finance and whom, when, and what to teach, (2) When You Manage Money, (3) When You Need to Economize, (4) When Ads Overwhelm You, (5) What's in a Name, (6) When You Shop from a Catalog, (7) Women at Work, (8) The Men in Your Life, (9) When You Use Consumer Credit, and (10) When the Customer Needs Protection. Each leaflet lists topics for teaching. Topics are suggested to inspire busy teachers to investigate some of the neglected aspects of the use of money by youth. Lists of resources of reliable information on money, suggestions for finance experiences and bulletin boards, and an order form for instructional materials on consumer education are included. This document is available for 75 cents from Department of Home Economics, National Education Association, 1201 Sixteenth Street, N.W., Washington, D.C. 20036. (FP)

INDUSTRIAL ARTS
EDUCATION
SECTION

VT 000 969

Principles and Practices of Trade and Industrial Teaching
(Including Technical and Industrial Arts), A Syllabus for the
Course.

Southeast Mo. St Coll, Cape Girardeau. Dep of Ind Arts

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 20p.

*STUDY GUIDES, *TEACHER EDUCATION, *INDUSTRIAL ARTS, *TRADE AND
INDUSTRIAL EDUCATION, *TEACHING METHODS, TECHNICAL EDUCATION,

Information on teaching methodology, principles, and evaluative
criteria is provided for training industrial arts and trade and
industrial teachers. The material was developed by a college faculty
member. References and study questions are given for the
units: (1) background for vocational-technical education, (2) the
instructor, (3) industrial arts, (4) technical education, (5)
concepts and trends, (6) shop factors affecting learning, (7) course
and laboratory planning, (8) instructional aids, (9) management
procedures, (10) student evaluation, (11) public relations, (12)
vocational guidance, (13) reimbursed programs, and (14) principles
of vocational education. The suggested time allotment is 72 clock
hours. General course requirements and a bibliography of outside
readings containing material dated from 1926 to 1966 are included.
(EM)

VT 003 286

Related Information for the Study of Ferrous Industry.

Bailey, James H. * and others

Central Michigan Univ., Mt. Pleasant. Dept. of Ind. Educ.

Pub Date - 16Aug67

MF AVAILABLE IN VT-ERIC SET. 125p.

*RESOURCE UNITS, *INDUSTRIAL ARTS, *METALS, HIGH SCHOOLS,
INSTRUCTIONAL FILMS, BIBLIOGRAPHIES,

This resource unit is for teacher use in a course treating the
ferrous metal industry. It was developed in a National Defense
Education Act Institute for Advanced Study in Industrial Arts by 25
industrial arts metal teachers. Textual material is presented for
the topics: (1) Introduction and History, (2) Ownership and Control,
(3) Sources of Raw Materials, (4) Refining Processes, (5)
Manufacturing Consumer Products, and (6) Sales and Distribution.
Curricular materials include units on mass production titled--(1)
Introduction and History of American Industry, (2) Financial
Structure of Industry, (3) Typical Structure and Personnel
Responsibilities in an Industrial Corporation as Adapted to a
Classroom Situation, (4) Research and Development, and (5)
Production, Planning, Quality Control, and Production Flow Chart.
Supplementary materials include (1) organizational charts, (2) a
unit test, and (3) an extensive bibliography of books, films,
periodicals and institute resource materials. (EM)

VT 004 596

Handbook for Instructors of Industrial Arts and Vocational
Education.

Tulsa Public Schools, Okla. Div. of Instruction
TPS-Curriculum Bull-6.
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 68p.

*TEACHING GUIDES, *PROGRAM GUIDES, *INDUSTRIAL ARTS, *VOCATIONAL EDUCATION, JUNIOR HIGH SCHOOLS, HIGH SCHOOLS, ELEMENTARY SCHOOLS, SCHOOL SHOPS, CURRICULUM, EQUIPMENT,

This guide was developed by administrative personnel for use by teachers in operating programs in the Tulsa school system. The objectives, a statement of beliefs, and the philosophy of vocational industrial education are discussed. A description of the industrial arts and vocational education program covers the elementary through adult levels of instruction, suggested courses, and cooperative training. Specific directions are given for (1) opening the shop for the new year, (2) managing shop finance, (3) organizing personnel, (4) insuring safety, (5) teaching, which includes lesson planning, methods, materials, content, related study, practical work, curriculum guides, and projects, (6) acquiring and using supplies, (7) evaluating students and self, (8) preparing for a substitute teacher, (9) closing the shop at the end of the year, which includes making inventories, storing equipment, requisitioning new supplies and equipment, and completing state and school reports, and (10) attaining professional growth. (BS)

VT 004 636

Experiments and Instructional Units for Industrial Materials as an Integrated Part of the Industrial Arts, Prepared at NDEA Title XI Institute for Advanced Study in Industrial Arts (San Jose State College, California, June 19-July 28, 1967).

Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 233p.

*TEACHING GUIDES, *INDUSTRIAL ARTS, UNITS OF STUDY (SUBJECT FIELDS), HIGH SCHOOLS, *LABORATORY EXPERIMENTS,

These units were developed for teacher use in presenting various industrial materials and their characteristics to industrial arts students. The 58 units are grouped by the topics: (1) electricity, (2) fuels and lubricants, (3) graphic arts, (4) leather, (5) metal, (6) plastics, and (7) wood. Two nonclassified units are "A Beam Deflection Testing Device" and "Strength Testing Apparatus." Each unit includes (1) grade level, (2) objectives, (3) materials and equipment, (4) outline of utilization process, (5) definition of terms, (6) references, and (7) an illustration. Also included are drawings of an abrasion tester for paper, an elasticity-plasticity demonstration board, an impact tester, a wood abrasion tester, and sample preparations for metal etching and powder metallurgy. The document is loose leaf and dittoed except for the illustrations which are lithographed. (EM)

VT 004 851

General Industrial Arts (Manufacturing), A Course of Study for Grades 7, 8, or 9.

Georgia State Dept. of Educ., Atlanta. Ind. Arts Educ.
 Pub Date - 67
 MF AVAILABLE IN VT-ERIC SET. 266p.

*CURRICULUM GUIDES, *INDUSTRIAL ARTS, *MANUFACTURING, GRADE 7,
 GRADE 8, GRADE 9, LESSON PLANS,

A revision of the 1960 edition, this curriculum guide was developed by graduate students and a teacher-educator for use by teachers in planning a flexible 1-year course in manufacturing for grades seven, eight, or nine. The introduction gives the underlying philosophy, course objectives, and an organization chart. The 37 lesson plans cover (1) general procedures dealing with planning, selecting materials, assembling, finishing, caring for equipment, selecting and using industrial products and considering industrial arts teaching as a career, and (2) specific lessons dealing with drafting, woods, metals, electricity, graphic arts, power, and industry. Most lesson plans include objectives, time required, instructional aids, introduction, subject matter outline, summary questions, an assignment, and methods of testing, and references. The time required for each lesson ranges from one to 10 periods. Suggested student activities and sample job assignment and informational assignment sheets for written exercises are included. (EM)

VT 005 164

Early Secondary Industrial Arts, An Instructional Guide.

Hay, Earl
 New York State Ed Dept, Albany. Bur of Sec Curriculum Dev
 Pub Date - 67
 MF AVAILABLE IN VT-ERIC SET. 152p.

*CURRICULUM GUIDES, *INDUSTRIAL ARTS, *JUNIOR HIGH SCHOOLS,

Designed for teacher use, the guide develops and establishes minimum instructional content for two semesters of industrial arts in the early secondary grades. It was developed at a State curriculum workshop by committees of experienced teachers and state education department personnel. The material, designed to meet national educational objectives, was presented to industrial arts leaders at an annual state conference for evaluation and criticism, and their recommendations were considered in the preparation of the final manuscript by the Supervisor of Vocational Curriculum. The program organization is based on 25 percent organized group instruction, 75 percent personalized instruction and manipulative experience, 80 percent of group instruction time devoted to lesson content, and teacher addition of lessons and content to enrich and expand all areas. The content distribution for the first semester is (1) Woods, 40 percent, (22 lessons), (2) Ceramics, 22.5 percent, (15 lessons), (3) Plastics, 22.5 percent, (11 lessons), and (4) Drafting, 15 percent, (10 lessons). Content distribution for the second semester is (1) Metals, 30 percent, (16 lessons), (2) Electricity, 25 percent, (15 lessons), (3) Graphic Arts, 20 percent, (13 lessons), and (4) Power Mechanics, 25 percent, (14 lessons). Each lesson includes the desired student understanding, a description, and suggested applications. Supplementary materials include (1) information on a line production unit, community resources, instructional media, and basic industrial arts curriculum

patterns, and (2) examples of semester schedules and a weekly planbook page. (EM)

VT 005 279

The Pre-Technical Project, A Demonstration in Education for Technology. Engineering Technology, 11th and 12th Year.

New York City Board of Ed, Brooklyn, N.Y. Bur of Curr Dev

Pub Date - Sep67

MF AVAILABLE IN VT-ERIC SET. 256p.

PROGRAM GUIDES, *CURRICULUM GUIDES, INDUSTRIAL ARTS, *TEACHING GUIDES, *ENGINEERING, GRADE 11, GRADE 12, EXPERIMENTAL CURRICULUM, *PRETECHNOLOGY PROGRAMS, UNDERACHIEVERS, TEACHING METHODS, PROGRAM DEVELOPMENT, Engineering Technology,

This curriculum guide was developed by a committee of teachers, and revised after classroom use for use in comprehensive high schools with 11th and 12th grade students who are planning post-secondary education in engineering technology. The program emphasizes a team teaching approach to interdisciplinary correlation of subject matter and a laboratory orientation of the curriculum. It was conceived as a system of remotivation for underachieving students. Suggested units for the grade 11 are (1) Measurement, (2) Composition and Resolution of Forces, (3) Work, Energy, and Power, (4) Simple Machines, (5) Transformation of Energy, (6) Heat, (7) Mechanics of Fluids, (8) Light, (9) Sound, and (10) Motion. Suggested units for grade 12 are (1) Magnetism and Static Electricity, (2) Current Electricity, (3) Electronics, (4) Electrochemistry, and (5) Nuclear Energy. Each unit gives suggested objectives, topics, and activities. Student selection should be on the basis of unfulfilled academic potential and marginal achievement at the end of grade 10. The suggested time allotment is 16.5 clock hours per week. Supplementary materials include (1) information on general methodology and specific teaching methods for science, industrial arts laboratory, engineering English, and engineering mathematics, (2) examples of administrative aids, and (3) line drawing illustrations. Other documents in the series concern medical technology (VT 005 278) and business technology for grade 11 (VT 005 280) and grade 12 (VT 005 281). For VT 005 278 see ED 019 496, October 68 RIE. Single copies of this document are available to school systems without charge from Correlated and Pre-Technical Programs, 480 Pacific Street, Brooklyn, New York 11217. (EM)

VT 005 595

ED 020 429

Structure and Content Foundations for Curriculum Development.

DeVore, Paul W.

American Industrial Arts Assn., Washington, D.C.

Pub Date - 66

EDRS PRICE MF-\$0.25 HC NOT AVAILABLE FROM EDRS. 24p.

*INDUSTRIAL ARTS, *TECHNOLOGY, *TAXONOMY, *CURRICULUM DEVELOPMENT, *CURRICULUM DESIGN, GENERAL EDUCATION, SOCIAL FACTORS, CULTURAL FACTORS,

It is proposed that an industrial arts curriculum be based on the concept of man as a creator of technology. Technology is a major American societal base involving practically all citizens and should be established as a discipline to eliminate confusion and lack of direction in the curriculum. A macrotechnological analysis identifying a universe of content which is in keeping with the principles of discipline structures and general education is offered as a means of defining a taxonomy to serve curriculum planning. A taxonomy of technology consists of both technical and cultural-social elements with the major technical areas being production, communication, and transportation which meet taxonomic selection criteria including that of universalism. Illustrative examples indicate 10 levels of specificity in the proposed taxonomy. Major steps in curriculum development, utilizing the taxonomy as a context reservoir, are to establish the taxonomy, the basic concepts and principles, units of content instruction based on analyses of concepts and principles, and courses of study by grouping logical combinations of instructional units. Some advantages of this approach are that (1) content selection criteria are provided, (2) flexibility, adaptability, and internal consistency are intrinsic, (3) programs rather than isolated courses are possible, (4) teacher competency can be increased through specialization, and (5) a base is provided for lifetime study and professional contribution by teachers. It is recommended that the profession, through the American Industrial Arts Association, establish a permanent committee for deriving a taxonomic structure for the industrial arts. This document is available for 90 cents from American Industrial Arts Association, National Education Association, 1201 Sixteenth Street, N.W., Washington, D.C. 20036. (EM)

TRADE AND
INDUSTRIAL EDUCATION
SECTION

VT 000 284 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control, Static Control Series.
 Basic Control Functions, Unit 9A.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Sep64
 DOCUMENT NOT AVAILABLE FROM EDRS. 238p.

*PROGRAMED TEXTS, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRONIC
 TECHNICIANS, *ELECTRONIC CONTROL, ADULT VOCATIONAL EDUCATION,
 *INDIVIDUAL INSTRUCTION,

This self-instructional programed text is for individual student use in studying static control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers and has been tested by student use. The objective of the course is to help the electrical-technician develop an understanding of static control functions. The material is divided into fundamental ideas and language of control functions, the logic of control functions, and static control elements. The lessons within each section provide the lesson subject, purpose, information, and exercises. The material is programed using a four-step lesson plan, subject, purpose, information, and exercises, and fold-outs provide electrical diagrams and illustrations. Answers to the exercises are given at the end of each section. All of the necessary information is included in the text. The students should be electrical technicians employed in the electrical-electronic industries and should have a comprehension of relay circuits and electrical and magnetic fundamentals. This unit is one of a series developed for an electrical-electronic program. Assignments and instructor's guides for other units are available as VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$5.40 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 285 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control, Static Control
 Series. Magnetic Amplifiers. Unit 9 B, Assignments.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education.
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Aug63
 DOCUMENT NOT AVAILABLE FROM EDRS. 167p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRONIC
 TECHNICIANS, *ELECTRONIC CONTROL, ADULT VOCATIONAL EDUCATION,
 *INDIVIDUAL INSTRUCTION,

This guide is for individual student use in studying static control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The unit objective is to develop an understanding of the principles of magnetic amplifier operation. Each of the 12 assignment sheets contains the lesson subject, purpose, introductory information, study references, and questions. Some of the lessons are (1) magnetic theory, (2) the saturable reactor, (3) cascading and biasing, (4) basic functions of magnetic amplifiers, and (5) magnetic amplifier logical elements.

The lessons are keyed to a required textbook. Three experiment sheets provide for additional application of the information. The material is to be used under teacher direction for 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The instructor's guide (VT 000 286) provides step-by-step solutions to the assignment sheet and test problems. The unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$3.25 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 286 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control, Static Control Series. Magnetic Amplifiers, Unit 9B, Instructor's Guide.

Sutton, Mack C.
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Aug63
DOCUMENT NOT AVAILABLE FROM EDRS. 174p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION,
*ELECTRONIC TECHNICIANS, *ELECTRONIC CONTROL, ADULT VOCATIONAL
EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual student study of static control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The unit objective is to develop an understanding of magnetic amplifiers. Each of the 12 instructor's sheets gives the lesson subject, purpose, introductory information, references, and step-by-step solutions to the student assignment sheet problems. The lessons are keyed to a required textbook, Mali, "Magnetic Amplifiers" (John F. Rider Publishers, Inc.). Three demonstration sheets provide for additional application of information. The suggested time allotment is 40 classroom hours. The teacher should have normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. Three versions of the mid-course and final tests are given with step-by-step problem solutions. The assignments for Unit 9B are available as VT 000 285. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$3.25 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 287 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control, Static Control Series. Remote Control by Industrial Telemetry. Unit 9C.

Texas Univ., Austin. Dept. of Industrial Education.
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Jul65
 DOCUMENT NOT AVAILABLE FROM EDRS. 287p.

*PROGRAMED TEXTS, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRONIC
 TECHNICIANS, *ELECTRONIC CONTROL, ADULT VOCATIONAL EDUCATION,
 *INDIVIDUAL INSTRUCTION,

This self-instructional programed text is for student use in studying industrial telemetry control systems in electrical-electronic programs. It was developed by an instructional materials specialist and advisers and tested by student use. The material is divided into Fundamental Ideas and Language of Industrial Telemetry and The Logic of the Digital Transceiver. The lessons within each section provide the lesson subject, purpose, information, and exercises. The material is programed using a four-step lesson plan, subject, purpose, information, and exercise, and foldouts provide electrical diagrams and illustrations. Answers to the exercises are given at the end of each section. All of the necessary information is included in the text. The students should be electrical technicians employed in the electrical-electronic industries, and should have a comprehension of electrical and magnetic fundamentals. This unit is part of a series developed for an electrical-electronic program. Assignments and instructor's guides for other units are VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$6.40 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 308 ED (See Dec 68 RIE)
 Basic Mathematics for Electricity, Electrical, and Electronic Control. Unit 1, Assignments.

Sutton, Mack C. * Wykes, Murray L.
 Texas Univ., Austin. Dept. of Industrial Education.
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Jun65
 DOCUMENT NOT AVAILABLE FROM EDRS. 89p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL
 OCCUPATIONS, *PRACTICAL MATHEMATICS, ADULT VOCATIONAL EDUCATION,
 *INDIVIDUAL INSTRUCTION,

This guide is for individual student use in studying basic mathematics in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. Each of the 19 assignment sheets provides the lesson subject, purpose, introductory information, study references, directions, and problems. The lessons, keyed to three textbooks, start with whole numbers and common fractions and progress to trigonometric functions and logarithms. The problems are designed for application in later lessons on electrical theory. The material is to be used by the individual student under teacher direction for 40 classroom hours. The teacher should have normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The instructor's guide (VT 000 309) provides step-by-step solutions to the assignment sheet and test problems. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics,

basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and the instructor's guide for the various units in the electrical-electronics program are available as VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 309 ED (See Dec 68 RIE)
Basic Mathematics for Electricity, Electrical, and Electronic Control. Unit 1, Instructor's Guide.

Sutton, Mark C. * Wykes, Murray L.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Sep60
DOCUMENT NOT AVAILABLE FROM EDRS. 106p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION,
*ELECTRICAL OCCUPATIONS, *PRACTICAL MATHEMATICS, ADULT VOCATIONAL
EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual student study of basic mathematics in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. Each of the 19 instructor's sheets give the lesson subject, references, and a step-by-step solution of the student assignment sheet problems. The lessons, keyed to three textbooks, start with whole numbers and common fractions and progress to trigonometric functions and logarithms. Three versions of the mid-course and the final tests are given with step-by-step problem solutions. The suggested time allotment for the unit is 40 classroom hours. The teacher should have normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The assignments for Unit 1 are available as VT 000 308. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 310 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. Basic Electricity, Unit 2, Assignments.

Sutton, Mack C.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Jul60
DOCUMENT NOT AVAILABLE FROM EDRS. 108p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL
OCCUPATIONS, *ELECTRICITY, ADULT VOCATIONAL EDUCATION, *INDIVIDUAL
INSTRUCTION,

This guide is for individual student use in studying basic electrical fundamentals in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The course objective is to develop an understanding of direct current fundamentals. Each of the 15 assignment sheets provides the lesson subject, purpose, introductory information, study references, directions, and problems. Some of the lessons are (1) basic electrical theory, (2) series circuits, (3) electrical power measurement, (4) batteries and electrolytic action, and (5) magnets and magnetism. For additional application of the information, six experiments are included. Four required books and one recommended book to provide supplementary information are listed. The material is to be used by the individual student under teacher direction for 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The instructor's guide (VT 000 311) provides step-by-step solutions to the assignment sheet and test problems. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 311 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. Basic Electricity,
Unit 2, Instructor's Guide.

Sutton, Mark C.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - May 61
DOCUMENT NOT AVAILABLE FROM EDRS. 123p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION,
*ELECTRICAL OCCUPATIONS, *ELECTRICITY, ADULT VOCATIONAL EDUCATION,
*INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual student study of basic electrical fundamentals in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The course objective is to develop an understanding of direct current fundamentals. Each of the 15 instructor's sheets give the lesson subject, references, and a step-by-step solution of the student assignment sheet problems. For additional information application, six demonstration sheets for conducting experiments are included. Four required books and one recommended book to provide supplementary information are listed. Three versions of the mid-course and the final tests are given with step-by-step problem solutions. The suggested time allotment for the unit is 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The assignments for Unit 2 are available as VT 000 310. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls.

Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 312 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. Basic Electricity, Unit 3, Assignments.

Sutton, Mack C.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Oct60
DOCUMENT NOT AVAILABLE FROM EDRS. 101p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *ELECTRICITY, ADULT VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for individual student use in studying basic electrical fundamentals in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The course objective is to develop an understanding of direct current fundamentals. Each of the 10 assignment sheets provides the lesson subject, purpose, introductory information, study references, examples, and problems. Some of the lessons are (1) operation of direct-current generators, (2) D-C motors, (3) test instruments, (4) inductance, and (5) capacitance. The lessons are keyed to two textbooks. The suggested time allotment for the unit is 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The instructor's guide (VT 000 313) provides step-by-step solutions to the assignment sheet and test problems. The unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 313 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. Basic Electricity, Unit 3, Instructor's Guide.

Sutton, Mack C.
Texas Univ., Austin. Dept. of Industrial Education
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Oct60
DOCUMENT NOT AVAILABLE FROM EDRS. 125p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *ELECTRICITY, ADULT VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual study of basic electrical fundamentals in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The course objective is to develop an understanding of direct current fundamentals. Each of the 10 instructor's sheets gives the lesson subject, references, examples, and step-by-step solutions of the student assignment sheet problems. The lessons are keyed to two textbooks. Three versions of the final test are given with step-by-step problem solutions. The suggested time allotment for the unit is 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The study guide for Unit 3 is available as VT 000 312. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 314 ED (See Dec 68 RIE)
 Electrical and Electronic Industrial Control. Basic Electricity,
 Unit 4, Assignments.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education.
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Feb 61
 DOCUMENT NOT AVAILABLE FROM EDRS. 132p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL
 OCCUPATIONS, *ELECTRICITY, ADULT VOCATIONAL EDUCATION, *INDIVIDUAL
 INSTRUCTION,

This guide is for individual student use in studying basic electrical fundamentals in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The course objective is to develop an understanding of alternating current fundamentals. Each of the 16 assignment sheets provides the lesson subject, purpose, introductory information, study references, directions, examples, and problems. Some of the lessons are (1) A-C circuits containing resistance only, (2) reactions in A-C circuits, (3) resonance in parallel A-C circuits, (4) power in A-C circuits, and (5) rotating magnetic fields. For additional application of the information, three experiments are included. Two required and four recommended books to provide supplementary information are listed. The material is to be used by the individual student under teacher direction for 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The instructor's guide (VT 000 315) provides step-by-step solutions to the assignment sheet and test problems. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as

VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 315 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. Basic Electricity, Unit 4, Instructor's Guide.

Sutton, Mack C.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Feb61
DOCUMENT NOT AVAILABLE FROM EDRS. 155p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION,
*ELECTRICAL OCCUPATIONS, *ELECTRICITY, ADULT VOCATIONAL EDUCATION,
*INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual study of basic electrical fundamentals in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. The unit objective is to develop an understanding of alternating current fundamentals. Each of the 16 instructor's sheets gives the lesson subject, purpose, introductory information, references, supplementary information, examples, and step-by-step solutions of the student assignment sheet problems. For additional application of the information, three demonstration sheets for conducting experiments are included. Two required and three recommended books to provide supplementary information are listed. Three versions of the midcourse and the final tests are given with step-by-step problem solutions. The suggested time allotment is 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The assignments for Unit 4 are available as VT 000 314. This course is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 316 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. A-C Conventional Magnetic Motor Control, Part I, Unit 5, Assignments.

Sutton, Mack C.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Sep61
DOCUMENT NOT AVAILABLE FROM EDRS. 61p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *ELECTRONIC CONTROL, *ELECTRIC MOTORS, ADULT VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for individual student use in studying alternating current conventional magnetic motor control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. Each of the 10 assignment sheets provides the lesson subject, purpose, introductory information, study references, supplementary information, and problems. For additional application of the information, two experiments are included. Some of the lessons are (1) control relays, (2) control devices, (3) electronic control circuit devices, (4) resistors and rheostats, and (5) mechanical design of controllers. The lessons are keyed to two required books and five other books are listed for supplementary information. The material is to be used by the individual student under teacher direction for 40 classroom hours. The teachers should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The instructor's guide (VT 000 317) provides step-by-step solutions to the assignment sheet and test problems. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507. This document is available for \$2.75 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 317 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. A-C Conventional
Magnetic Motor Control, Part I, Unit 5, Instructor's Guide.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education,
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Sep61
 DOCUMENT NOT AVAILABLE FROM EDRS. 81p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION,
 *ELECTRICAL OCCUPATIONS, *ELECTRONIC CONTROL, *ELECTRIC MOTORS,
 ADULT VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual study of alternating current conventional magnetic motor control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. Each of the 10 instructor's sheets gives the lesson subject, purpose, introductory information, references, and step-by-step solutions of the student assignment sheet problems. For additional application of the information, two demonstration sheets for conducting experiments are included. Two required books and five recommended books to provide supplementary information are listed. Three versions of the midcourse and final tests are given with step-by-step problem solutions. The suggested time allotment for the unit is 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The assignments for Unit 5 are available as VT 000 316. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units

in the electrical-electronic program are available as
 VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507.
 This document is available for \$2.75 from Industrial Education
 Department, Division of Extension, The University of Texas, Austin,
 Texas 78712. (HC)

VT 000 318 ED (See Dec 68 RIE)
 Electrical and Electronic Industrial Control. A-C Conventional
 Magnetic Motor Control, Part II, Unit 6, Assignments.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education.
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - May62
 DOCUMENT NOT AVAILABLE FROM EDRS. 98p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL
 OCCUPATIONS, *ELECTRONIC CONTROL, *ELECTRIC MOTORS, ADULT
 VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This study guide is for individual student use in studying
 alternating current conventional magnetic motor control in
 electrical-electronic programs. It was developed by an instructional
 materials specialist and advisers. Each of the 10 assignment sheets
 provides the lesson subject, purpose, introductory information,
 study references, supplementary information, and problems. Some of
 the lessons are (1) squirrel cage motor control, (2) acceleration
 of wound rotor motors, (3) synchronous motor control, (4) control
 circuit applications, and (5) logic function circuit design. The
 lessons are keyed to two required textbooks, and four books are
 recommended for supplementary information. The material is to be
 used by the individual student under teacher direction for 40
 classroom hours. The teacher should have the normal education
 required of electrical-electronic instructors, and the students will
 usually be employed in the electrical-electronic industries. The
 instructor's guide (VT 000 319) provides step-by-step solutions to
 the assignment sheet and test problems. This unit is part of a
 series of 30- to 40-hours units which progress through basic
 mathematics, basic electricity, conventional motor controls, basic
 electronics, advanced electronics, and static electronic controls.
 Assignments and instructor's guides for the various units in the
 electrical-electronic program are available as
 VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507.
 This document is available for \$2.75 from Industrial Education
 Department, Division of Extension, The University of Texas, Austin,
 Texas 78712. (HC)

VT 000 319 ED (See Dec 68 RIE)
 Electrical and Electronic Industrial Control. A-C Conventional
 Magnetic Motor Control, Part II, Unit 6, Instructor's Guide.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education.
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - May62
 DOCUMENT NOT AVAILABLE FROM EDRS. 99p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION,
 *ELECTRICAL OCCUPATIONS, *ELECTRIC MOTORS, *ELECTRONIC CONTROL,
 ADULT VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual study of alternating current conventional magnetic motor control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. Each of the 10 instructor's sheets gives the lesson subject, purpose, introductory information, references, supplementary information, and step-by-step solutions of the student assignment sheet problems. Two required books and four books for supplementary information are listed. Three versions of the midcourse and final tests are given with step-by-step problem solutions. The suggested time allotment for the unit is 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The assignments for Unit 6 are available as VT 000 318. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507. This document is available for \$2.75 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 320 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. D-C Magnetic Motor Control, Unit 7, Assignments.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education.
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Sep62
 DOCUMENT NOT AVAILABLE FROM EDRS. 125p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICAL OCCUPATIONS, *ELECTRONIC CONTROL, *ELECTRIC MOTORS, ADULT VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for individual student use in studying direct current magnetic motor control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. Each of the 15 assignment sheets provides the lesson subject, purpose, introductory information, study references, and problems. Some of the lessons are (1) direct-current contactors, (2) D-C brakes and solenoids, (3) characteristics and acceleration of shunt motors, (4) hoist controllers for series motors, (5) rotating amplifier control, and (6) direct-current control circuit applications. The lessons are keyed to two required textbooks, and five books to provide supplementary information are listed. The material is to be used by the individual student under teacher direction for 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The instructor's guide (VT 000 321) provides step-by-step solutions to the assignment sheet and test problems. The unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284-VT 000 287, VT 000 308-VT 000 321, and VT 005 507. This

document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 321 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control. D-C Magnetic Motor Control, Unit 7, Instructor's Guide.

Sutton, Mack C.
Texas Univ., Austin. Dept. of Industrial Education.
Texas Education Agency, Austin. Industrial Education Div.
Pub Date - Sep62
DOCUMENT NOT AVAILABLE FROM EDRS. 125p.

*TEACHING GUIDES, ANSWER KEYS, *TRADE AND INDUSTRIAL EDUCATION,
*ELECTRICAL OCCUPATIONS, *ELECTRIC MOTORS, *ELECTRONIC CONTROL,
ADULT VOCATIONAL EDUCATION, *INDIVIDUAL INSTRUCTION,

This guide is for teacher use in directing individual study of direct current magnetic motor control in electrical-electronic programs. It was developed by an instructional materials specialist and advisers. Each of the 15 instructor's sheets gives the lesson subject, purpose, introductory information, references, and step-by-step solutions of the student assignment sheet problems. Two required textbooks and five books for supplementary information are listed. Three versions of the midcourse and final tests are given with step-by-step problem solutions. The suggested time allotment for the unit is 40 classroom hours. The teacher should have the normal education required of electrical-electronic instructors, and the students will usually be employed in the electrical-electronic industries. The assignments for Unit 7 are available as VT 000 320. This unit is part of a series of 30- to 40-hour units which progress through basic mathematics, basic electricity, conventional motor controls, basic electronics, advanced electronics, and static electronic controls. Assignments and instructor's guides for the various units in the electrical-electronic program are available as VT 000 284 - VT 000 287, VT 000 308 - VT 000 321, and VT 005 507. This document is available for \$3.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

VT 000 734
Diversified Cooperative Training Reference Material.

Ohio State Dep of Educ, Columbus. Trade and Ind Educ Serv
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 42p.

BIBLIOGRAPHIES, TRADE AND INDUSTRIAL EDUCATION, STUDY GUIDES,
*INSTRUCTIONAL MATERIALS, COOPERATIVE EDUCATION,

Diversified cooperative training coordinators compiled this bibliography of 63 study guides and the references cited in the guides in 26 occupational areas of trade and industrial education--auto body repair, auto mechanics, baking, bricklaying, cabinet making, carpentry, dairy, dental technology, drafting, dry cleaning, industrial electronics, electric motor repair, residential wiring, floristry, furniture repair and upholstery, machine operation, meat cutting, medical technology, nursing, painting and

decorating, photography, plumbing, printing, radio and television, sheet metal work, and welding. From one to four study guides are listed for each area. Most guides are from state departments of education, universities, or commercial publishers, and publication dates are not given. The publishers of the guides and references are included. This document is available for 35 cents plus postage and handling from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (EM)

VT 000 772

Instructor Training for Supervisory Personnel. Leaders Manual.

Ohio State Dep of Educ, Columbus. Trade and Ind Educ Serv

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 157p.

*TEACHING GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *TRADE AND INDUSTRIAL TEACHERS, *INSTRUCTIONAL AIDS, *TEACHER EDUCATION,

This teaching guide is for instructor trainer use in conducting instructor training courses for future trade, public service, and industrial occupations instructors. It was developed by teacher educators and refined by the state trade and industrial education staff after trial use. The objective of the course is to provide the future tradesmen-instructor with an approved method of instruction which will enable him to teach others the related technology or the manipulative skills of his trade. The first unit of the course acquaints the learners with the value of instructor training to the future instructor. The second unit, by means of demonstrations performed by the instructor trainer, acquaints the group with the effectiveness of telling and showing as methods of teaching skills and trade information. Each succeeding unit is divided into 2 parts. The first part of a unit is devoted to practice instruction demonstration lessons of how to teach a lesson, a job, or an operation, which is organized and presented by a member of the group. The second part of a unit is utilized by the instructor trainer in presenting new phases of instruction which are vital to the learner's success as an instructor. The 12 units of instruction cover approximately 15 clock hours and not more than 10 learners should be enrolled in a course. The instructor trainer should be a qualified instructor. The document is supplemented with a series of charts and handouts to be used by the instructor trainer as teaching aids. These are available as separate handout sheets in VT 000 772a. This document is available for \$3.00 from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, The Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210. (HC)

VT 002 785

Cabinetmaking and Millwork, Part 3, Workbook.

Gauthier, Al * and others

California State Dept of Ed, Sacramento. Bur of Ind Ed

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 122p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *APPRENTICESHIPS, *CABINETMAKERS, *CABINETMAKING,

The information in this study guide was developed for use in related technical instruction in the cabinetmakers apprentice training program. The material was written by two cabinetmaking and millwork instructors and an apprentice training specialist under direction and assistance of the Carpenters State Educational Advisory Committee and an educational subcommittee. The units are (1) Lumber and Veneers, (2) Adhesives, (3) Plastic Laminates, (4) Power Machines, (5) Cabinets and Fixtures, (6) Millwork, and (7) Blueprint Reading and Layout. Each unit is divided into topics which contain an introduction, a section of related information, an assignment from supplementary books, and a set of check-up questions for student self-evaluation. A record of student progress may be kept in the study guide index. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. Line-drawing illustrations are included. A list of supplementary instructional materials includes six required books and two classroom library books. Testbooks and final examinations are available to the instructor. Cabinetmaking and Millwork, Part 2, (VT 002 991) is also available. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 002 868

Program for the Degree of Bachelor of Science with a Major in American Industry.

Stout State Univ., Menomonie, Wis.

Pub Date - Apr67

MF AVAILABLE IN VT-ERIC SET. 8p.

*INDUSTRY, *TRADE AND INDUSTRIAL EDUCATION, *COLLEGE PROGRAMS, *TEACHER EDUCATION, *TEACHER EDUCATION CURRICULUM,

To meet the increasing demand for American Industry teachers, the American Industry Project developed a teacher education program on the college level to prepare teachers to implement its new curriculum in secondary schools. The program has the objective of developing an understanding of industry, the ability to solve problems related to industry, professional competence as a teacher, and personal competence as an individual and as a citizen. The 4-year program for the degree of bachelor of science with a major in American Industry requires a minimum of 136 credits including 20 credits in education, 34 credits in the major field, 62 credits in general studies, and 20 credits in elective subjects. One summer of field experience is also required. The major courses in American Industry have been planned to develop a high degree of competency in understanding the whole of industry rather than skills in one or two isolated aspects. The Project has developed and field tested curriculum materials for the secondary schools including teacher guides, visual materials, film catalogs, and student texts. An outline of courses for the 4-year program is included. (HC)

VT 002 991

Cabinetmaking and Millwork, Part 2, Workbook.

California State Dept of Ed, Sacramento. Bur of Ind Ed

Pub Date - 64

MF AVAILABLE IN VT-ERIC SET. 108p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CABINETMAKERS,
*APPRENTICESHIPS, *CABINETMAKING,

The information in this study guide was developed for use in related technical classroom instruction in the cabinetmaker apprentice training program. The material was planned and developed in cooperation with trade journeymen and the Carpenters State Educational Advisory Committee. The units are (1) Mathematics, (2) Blueprint Reading and Stock Billing, (3) Power Machines, (4) Machine Operations, (5) Layout, (6) Millwork, (7) Benchwork, and (8) Laminated Plastics. Each unit is divided into study topics which contain an assignment from reference material, an introduction of background material, a section of related information, and a set of check-up questions for student self-evaluation. Photographic and line-drawing illustrations are included. A record of topics completed may be kept in the study guide index. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. Recommended supplementary instructional materials for the apprentice and the classroom library are listed. Testbooks and final examinations are available to the instructor. Cabinetmaking and Millwork, Part 3 (VT 002 785) is also available. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 003 798

Programs and Courses Offered and Textbooks Used.

Pensacola Junior Coll., Fla. Center for Adult Studies
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 20p.

*BIBLIOGRAPHIES, *TEXTBOOKS, *TRADE AND INDUSTRIAL EDUCATION,
*OFFICE OCCUPATIONS EDUCATION,

Textbooks used in 48 courses in the fields of trade and industrial education and business education are listed. The names of authors and publishers are included. (EM)

VT 003 992

A Basic Plan for the Organization and Management of Instruction in Vocational Carpentry.

Mississippi State Dept. of Vocat Educ., State College. Curr. Lab.
Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 43p.

*CURRICULUM GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CARPENTERS,
*CARPENTRY, GRADE 11, GRADE 12,

This curriculum guide was developed by a curriculum committee of trade instructors in a workshop as a preliminary draft for use in planning, preparing, presenting, and evaluating a preparatory course in carpentry at the secondary level. The content outline is based on a trade analysis which covers the units (1) Fastening Tools, (2) Measuring Tools, (3) Layout Tools, (4) Holding Tools, (5) Hand Cutting Tools, (6) Boring Tools, (7) Bench Grinder, (8) Table Saws, (9) Radial Arm Saws, (10) Band Saws, (11) Jointers, (12)

Surface Planers, (13) Drill Presses, (14) Shapers, (15) Combination Belt and Disc Sanders, (16) Portable Power Tools, (17) Belt Sanders, (18) Vibrating or Orbital Sanders, (19) Sabre Saws, (20) Drill Motors, (21) Portable Routers, (22) Electric Planes, and (23) Flooring Hammers. Seventy-six suggested jobs range from elementary such as setting batter boards to more difficult such as hanging doors and setting locks. An outline of related instruction, mathematics, applied science and chemistry, strength of materials, blueprint reading, estimating, and safety is also given. The 1,080-hour course should be taught by one who has trade competence and teaching skills. Students should be able to profit from the training and should be selected on the basis of test results, school records, and a personal interview. Supplementary materials include a bibliography of texts and references and an equipment list for vocational carpentry. This document is available for \$1.00 from Curriculum Laboratory, Box NU, State College, Mississippi 39762. (EM)

VT 003 993

A Basic Plan for the Organization and Management of Instruction in Vocational Tool and Die.

Mississippi State Dept. of Vocat. Educ., State College
Mississippi State Univ., State College. Curriculum Lab.

Pub Date - 67

MF AVAILABLE IN VT-ERIC SET. 68p.

*CURRICULUM GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *TOOL AND DIE MAKERS, HIGH SCHOOLS, POST SECONDARY EDUCATION, EQUIPMENT, CURRICULUM DEVELOPMENT,

This curriculum guide is for instructor use in developing instructional materials for high school and post-high school vocational trade preparatory programs in tool and die work. It was developed in a workshop by systematically dividing the trade into major segments and then into basic manipulative tasks and informational topics which contribute to the intelligent use of job skills. This preliminary draft, to be reviewed by tool and die instructors and an industrial committee, will incorporate revisions recommended by the two groups. The course objective is to develop knowledges and skills that qualify the trainee for employment as an advanced learner in the tool and die trade. The outlines of instructional blocks are (1) Jigs and Fixtures, (2) Cutting Tools, (3) Dies, (4) Die Repair, (5) Cavities, and (6) Gages. The course is designed for a 72-week period of 2,160 hours. The teacher should be trade competent with teaching skills, and the students should be those who want, need, and can profit from the training. Student selection techniques should include testing, examining school records, and interviewing. Supplementary materials include lists of recommended textbooks, suggested references, and equipment. This document is available for \$1.00 from Curriculum Laboratory, Box NU, State College, Mississippi 39762. (HC)

VT 004 162

ED 016 841

The Preparation of Curriculum Materials and the Development of Teachers for an Experimental Application of the Cluster Concept of Vocational Education at the Secondary School Level. Volume I.

Maley, Donald

Maryland Univ., College Park. Dept. of Industrial Educ.

BR-6-2312

Pub Date - Aug67
EDRS PRICE MF-\$1.25 HC-\$12.32 306p.

*CURRICULUM DEVELOPMENT, CURRICULUM RESEARCH, TEACHER ATTITUDES, TEACHER BACKGROUND, *TEACHER EDUCATION, TEACHER EDUCATION CURRICULUM, *TRADE AND INDUSTRIAL EDUCATION, HIGH SCHOOLS, PILOT PROJECTS, INSTRUCTIONAL MATERIALS, *OCCUPATIONAL CLUSTERS, SUMMER WORKSHOPS, TEACHER SELECTION, *TEACHER PARTICIPATION, PROGRAM DEVELOPMENT,

The results of the first phase of the study indicated that the cluster concept was an acceptable form of vocational education at the secondary school level, and provided a series of course outlines for the occupational clusters of construction, metal forming and fabrication, and electro-mechanical installation and repair. The second phase aimed to develop teachers capable of implementing pilot cluster concept programs and a teacher preparation curriculum for such programs. Eleven teachers were selected on the basis of staff evaluation to participate in the program. During the spring semester, in 16 sessions, they developed instructional plans for implementing the programs, reviewed and evaluated instructional materials, and arranged the content of each cluster into an instructional sequence. During a 6-week summer workshop, they worked with industries to develop the technical skills and knowledge required for implementing the programs and prepared occupational information units and developed instructional materials for each cluster. As an outgrowth of experiences and observations of the workshop sessions, teacher preparation curriculum was developed. Major divisions were Professional Competency Development for Cluster Concept Programs, Organization and Administration, Technical Competency Development, and Instructional Materials Development. Each division consisted of units containing purpose, time, topics, procedures and activities, and resources. The curriculum is included. Three other volumes (VT 004 163, VT 004 164, VT 004 165) present the instructional plans for each of the occupational clusters. (MM)

VT 004 163 ED 016 842

The Preparation of Curriculum Materials and the Development of Teachers for an Experimental Application of the Cluster Concept of Vocational Education at the Secondary School Level. Volume II, Instructional Plans for the Construction Cluster.

Maley, Donald
Maryland Univ., College Park. Dept. of Industrial Educ.
BR-6-2312

Pub Date - Aug67
EDRS PRICE MF-\$0.75 HC-\$6.36 157p.

*OCCUPATIONAL CLUSTERS, *BUILDING TRADES, *TEACHING GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CURRICULUM GUIDES, GRADE 11, GRADE 12,

Designed for use with 11th and 12th grade students, this curriculum guide for the occupational cluster in construction was developed by participating teachers from results of the research procedures described in Volume I (VT 004 162). The course description, need for the course, course objectives, procedure, and instructional plan are discussed briefly. The tasks and areas of human requirements are arranged in an instructional sequence for each occupation included in the construction cluster: (1)

carpentry, (2) electricity, (3) masonry, (4) painting, and (5) plumbing. Suggested teaching methods, instructional materials, student activities, and evaluation procedures are arranged in columns opposite each area of human requirement. An instructional materials list contains books, films, filmstrips and pamphlets. Volume III, Instructional Plans for the Metal Forming and Fabrication Cluster (VT 004 164) and Volume IV, Instructional Plan for the Electro-Mechanical Installation and Repair Cluster (VT 004 165) cover the other two occupational clusters developed by the project. (MM)

VT 004 164 ED 016 843

The Preparation of Curriculum Materials and the Development of Teachers for an Experimental Application of the Cluster Concept of Vocational Education at the Secondary School Level. Volume III, Instructional Plans for the Metal Forming and Fabrication Cluster.

Maley, Donald
Maryland Univ., College Park. Dept. of Industrial Educ.
BR-6-2312
Pub Date - Aug67
EDRS PRICE MF-\$0.75 H-C\$7.20 178p.

*OCCUPATIONAL CLUSTERS, *METAL WORKING OCCUPATIONS, *CURRICULUM GUIDES, *TEACHING GUIDES, *TRADE AND INDUSTRIAL EDUCATION, GRADE 11, GRADE 12,

Designed for use with 11th and 12th grade students, this curriculum guide for the occupational cluster in metal forming and fabrication was developed by participating teachers from results of the research procedures described in Volume I (VT 004 162). The course description, need for the course, course objectives, procedures and instructional plan are discussed briefly. The tasks and human requirements are arranged in an instructional sequence for each occupation included in the metal forming and fabrication cluster--assembly, machining, sheet metal work, and welding. Suggested teaching methods, instructional materials, student activities, and evaluation procedures are arranged in columns opposite each area of human requirement. An instructional materials list of books, film, filmstrips and charts is included. Volume II, Instructional Plans for the Construction Cluster (VT 004 163) and Volume IV, Instructional Plan for the Electro-Mechanical Installation and Repair Cluster (VT 004 165) cover the other two occupational clusters that were developed by the project. (MM)

VT 004 165 ED 016 844

The Preparation of Curriculum Materials and the Development of Teachers for an Experimental Application of the Cluster Concept of Vocational Education at the Secondary School Level. Volume IV, Instructional Plans for the Electro-Mechanical Cluster.

Maley, Donald
Maryland Univ., College Park. Dept. of Industrial Educ.
BR-6-2312
Pub Date - Aug67
EDRS PRICE MF-\$0.50 HC-\$5.08 125p.

*OCCUPATIONAL CLUSTERS, *ELECTRICAL OCCUPATIONS, *TEACHING GUIDES, *CURRICULUM GUIDES, *TRADE AND INDUSTRIAL EDUCATION, GRADE 11, GRADE 12,

Designed for use with 11th and 12th grade students, this curriculum guide for the occupational cluster in electro-mechanical installation and repair was developed by participating teachers from results of the research procedures described in Volume I (VT 004 162). The course descriptions, need for the course, course objectives, procedures, and instructional plan are discussed briefly. The tasks and human requirements are arranged in an instructional sequence for each occupation included in the electro-mechanical installations and repair cluster--air conditioning and refrigeration servicing, business machine servicing, home appliance servicing, and radio and television servicing. Suggested teaching methods, instructional materials, student activities, and evaluation procedures are arranged in columns opposite each area of human requirement. An instructional materials list contains books, manuals, pamphlets, films, filmstrips, and charts. Volume II, Instructional Plans for the Construction Cluster (VT 004 163) and Volume III, Instructional Plans for the Metal Forming and Fabrication Cluster (VT 004 164) cover the other two occupational clusters that were developed by the project. (MM)

VT 004 170

Operating Engineers, Internal Combustion Engines Workbook.

Dees, Danny O.
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 67
MF AVAILABLE IN VT-ERIC SET. 183p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION. OPERATING ENGINEERS, *ENGINES, DIESEL ENGINES, POST SECONDARY EDUCATION, *APPRENTICESHIPS,

For student use in acquiring related technical information on internal combustion engines in the operating engineers apprenticeship training program, this workbook was developed by a State Educational Advisory Committee consisting of top representatives from management and labor groups. The units of instruction are (1) General Description and Construction, (2) Engine Principles, (3) Engine Components, (4) Fuel Systems and Carburetion, (5) Engine Cooling and Lubrication, (6) Gas Engine Electrical System, and (7) Preventive Maintenance, Repairs, and Parts Ordering. Topic assignments within each unit contain objectives in question form, related technical information, study references, a study guide with short answer questions, and true-false tests. The material is to be used by the individual apprentice under teacher direction for one year or 144 hours of instruction. The teacher should be a qualified journeyman from the trade, and the students must be indentured operating engineer apprentices. Each topic is illustrated with line drawings and photographs. The table of contents provides spaces for instructor use in recording the assignment date of each topic. Textbooks and final examinations are available to the instructors. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 004 171 09 04 68

Operating Engineers, Heavy Equipment and Its Uses, Workbook.

Dees, Danny O.
 California State Dep of Educ, Sacramento. Bur of Ind Educ
 Pub Date - 66
 MF AVAILABLE IN VT-ERIC SET 180p.

TEXTBOOKS, *STUDY GUIDES, WORKBOOKS, *TRADE AND INDUSTRIAL
 EDUCATION, *OPERATING ENGINEERS, POST SECONDARY EDUCATION,
 *APPRENTICESHIPS,

This textbook workbook is for student use in the related technical instruction phase of the operating engineer apprenticeship training program. It was developed by the Operating Engineers State Educational Advisory Committee composed of top representatives from management and labor groups. The purpose of the material is to acquaint the operating engineer apprentice with heavy equipment and its uses. The units are (1) Revolving Shovel and Crane-Type Equipment, (2) Material Hoisting and Handling Equipment, (3) Tractors, (4) Graders, (5) Scrapers, (6) Loaders, (7) Compaction Equipment, (8) Plant Equipment, and (9) Paving Equipment. Each unit contains study topics with illustrated related technical information, safety precautions for equipment, operation, work exercises in the form of short-answer questions, and a checkup true-false quiz which the student completes then checks by reviewing the related instructional information. The material is to be used by the individual student or in classroom instruction groups for 144 hours. The teacher must be a qualified journeyman from the trade, and the students must be indentured apprentices. The course consists of the textbook-workbook for the apprentice and textbooks and final examinations for the instructor's use. This document is available for \$1.50 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 004 305 ED 018 649
 22 Charts to Accompany Peacetime Radiation Hazards in the Fire
 Service--Basic Course.

Office of Education (DHEW), Washington, D.C.
 OE-84022
 Atomic Energy Commission, Washington, D.C. Off of Ind Rel
 Pub Date - 61
 EDRS PRICE MF-\$0.25 HC NOT AVAILABLE FROM EDRS. 22p.

*CHARTS, *FIRE FIGHTERS, *RADIATION, *TRADE AND INDUSTRIAL
 EDUCATION,

A set of twenty-two 20-by-28 inch charts illustrating aspects of radiation such as types, effects of exposure, shields, warning signs, reactors, the chain reaction process, and fire-fighting procedures is to be used with (1) Resource Manual (VT 001 337), (2) Instructor's Guide (VT 002 117), (3) Student Study Guide (VT 001 878), (4) Orientation Unit--Student Manual (VT 002 067), and (5) Orientation Unit--Instructor's Guide (VT 001 989). This document is available as FS5.284--84022 for \$2 a set from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (PS)

VT 004 370 ED 018 650
 Bibliography of Training Aids.

McKeone, Charles J.
 Air Conditioning and Refrigeration Inst., Arlington, Va.
 Pub Date - Sep67
 EDRS PRICE MF-\$0.50 HC-\$2.80 68p.

*ANNOTATED BIBLIOGRAPHIES, *INSTRUCTIONAL AIDS, *AUDIOVISUAL AIDS,
 *AIR CONDITIONING, *REFRIGERATION, HIGH SCHOOLS, POST SECONDARY
 EDUCATION, INDUSTRY,

This compilation of instructional aids for use in air-conditioning and refrigeration training programs contains lists of visual and audiovisual training aids and guest lecturers available from member companies of the Air-Conditioning and Refrigeration Institute as an industry service to school officials interested in conducting such programs. The 85 listings of visual training aids are booklets, catalogs, manuals, technical articles and pamphlets, handy reference guides, strip films and slides, teaching models, and material for training transport refrigeration mechanics. The 17 listings of audiovisual training aids are strip film and record sets, slides and records sets, and sound motion picture films. The guest lecturer programs, available from two firms, are custom tailored for the audience involved. Each listing gives an identification code, the item title, a brief description, the appropriate educational level, the price, the availability source, and additional information necessary for ordering or using the training aids. (HC)

VT 004 715

Introduction to Apprenticeship, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
 Pub Date - 63
 MF AVAILABLE IN VT-ERIC SET. 219p.

*STUDY GUIDES, WORKBOOKS, *TRADE AND INDUSTRIAL EDUCATION,
 *BUILDING TRADES, *APPRENTICESHIPS,

This study guide is for use by beginning apprentices in the related technical phase of instruction for construct on trades. It was developed by the State Educational Advisory Committee. The major units are (1) The Apprentice and His Trade, (2) The Related Training Program, (3) Workmen's Legal Rights and Benefits, (4) Basic Mathematics, (5) Basic Tools, (6) Basic Science, and (7) Basic Blueprint Reading. Each unit gives an introduction, related information, a summary, and an objective-type checkup. The units require a minimum of 144 hours individual or class instruction. Students should be indentured apprentices, and the instructor should be a qualified journeyman. Photographs, line drawings, a supplementary reference list, and practice prints for use with the last unit are included. This document is available for \$2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 004 774

Theory I, Machine Shop.

Angowski, Stanley
 New Jersey State Dept. of Educ, Trenton. Div of Vocat Educ
 Rutgers, The State Univ., New Brunswick, N.J.
 Pub Date - Jan68
 MF AVAILABLE IN VT-ERIC SET. 202p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MACHINE TOOL OPERATORS, GRADE 11, GRADE 12,

For use by beginning vocational machine shop students, this study guide was developed by machine shop instructors and related theory instructors after testing the material in related classrooms for at least 1 year. Major topics are (1) Theory of Machines, (2) The Simple Machines, (3) Friction, (4) Shop Techniques, (5) Manufacture of Iron and Steel, (6) Foundry Techniques, (7) Heat Treatment, (8) Manufacture and Application of Grinding Wheels, (9) Electricity, and (10) Science of Measurement. Each of the 60 lessons gives an objective, related information, a vocabulary list, and assignments or questions. The material was designed for a 1-year course. The teacher should be a certified related instructor. Ten achievement tests based on the material presented and line drawings, sketches, and photographs are included. This document is available for \$2.25 from Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903. (EM)

VT 004 775

Elementary Electronics.

Kadrle, Joseph J.

New Jersey State Dept of Educ, Trenton. Div of Vocat Educ
Rutgers, The State Univ., New Brunswick, N.J.

Pub Date - Mar68

MF AVAILABLE IN VT-ERIC SET. 203p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRONICS, GRADE 10, GRADE 9,

For ninth and 10th grade students use in a 1-year course, this study guide was developed by an electronics instructor from curriculum materials which were tried in courses for 2 years. The 96 lessons present fundamental information and instructions for constructing three radio receivers. Each lesson presents some subelement of the radios and the procedure for its construction. Major units are (1) Soldering Practice, (2) Symbols and Codes, (3) Basic D.C. Circuits, (4) Wiring Projects, (5) D.C. Currents, Advanced, (6) T.R.F. Receiver Construction, (7) Instruments, (8) Superheterodyne Receiver Construction, (9) A.C. Circuits--Characteristics of Inductors and Capacitors and (10) A.C. Circuits--Characteristics of Resonant Circuits. This document was written for the average student and intersperses experiments with construction procedure. Each circuit is to be tested before the next one is constructed. The teacher should be certified to teach electronics. Schematic drawings of circuits are included. This document is available for \$2.25 from Vocational-Technical Curriculum Laboratory, Rutgers University, 10 Seminary Place, New Brunswick, New Jersey 08903. (EM)

VT 004 945

Supervised Study Guide in Welding.

Cockrum, Jim

Texas Univ., Austin. Dept. of Industrial Education

Texas Education Agency, Austin. Industrial Education Div.

Pub Date - Nov67

DOCUMENT NOT AVAILABLE FROM EDRS. 131p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *WELDERS, *WELDING, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This supervised study guide was developed by a welding instructor, a training specialist, and an advisory committee for use by students preparing for entry jobs as welding assistants. The 31 assignment sheets are keyed to "Welding Skills and Practices" by Giachino, Weeks, and Brune, second and third editions. Each assignment sheet gives objectives, introductory information, references, and questions. Major content units are (1) Safety and Precautions for the Welder, (2) Metal Properties and Identification, (3) Oxyacetylene Equipment and Supplies, (4) Oxyacetylene Welding, (5) Oxyacetylene Brazing and Braze Welding, (6) Oxyacetylene Cutting, (7) Alternating Current Arc Welding Equipment and Supplies, (8) Alternating Current Arc Welding, (9) Direct Current Arc Welding Equipment and Supplies, (10) Direct Current Arc Welding, (11) Special Welding Processes and Applications, (12) Welding Symbols Used on Drawings, (13) Gas Shielded Arc Welding, and (14) Welding Shop Equipment. The course was designed for 360 hours of instruction under a qualified vocational coordinator for employed junior or senior high school or technical institute students. A brief reference list and a job and class progress record form are included. This document and "Unit Tests for Supervised Study Guide in Welding" are available for \$5.45 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 005 137

Electrical Wiring. Part 1, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 63
MF AVAILABLE IN VT-ERIC SET. 174p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS,
*APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrical wiremen apprentices in the related technical phase of their training. Major units are (1) The Apprentice Electrical Wireman, (2) Safe Practices for the Wireman, (3) Introduction to Electricity, (4) Tools, Equipment, and Materials, (5) Workmen's Legal Rights and Benefits, and (6) Mathematics Review. Each of the 43 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrical apprentice. Illustrations are photographs or line drawings. A bibliography lists four textbooks and nine classroom references. Related study guides are VT 005 138, VT 005 139, and VT 005 140. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 138

Electrical Wiring. Part 2, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 64
MF AVAILABLE IN VT-ERIC SET. 173p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS,
*APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrician apprentices in the related technical phase of their training. Major units are (1) D-C Electricity and Apparatus, (2) Blueprint Reading and Specifications, (3) Fundamentals of A-C Electricity, (4) Specialized Tools and Equipment, and (5) The Construction Industry and Atomic Energy. Each of the 31 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrician apprentice. Illustrations are photographs, line drawings, or architectural plans. A bibliography lists books recommended for each apprentice and for the classroom library. Related study guides are VT 005 137, VT 005 139, and VT 005 140. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 139

Electrical Wiring. Part 3, Workbook.

Thyberg, Bruce * and others
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 166p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS,
*APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrician apprentices in the related technical phase of their training. Major units are (1) General Wiring Methods, (2) Residential Wiring Methods, (3) Commercial Wiring Methods, (4) Industrial Wiring Methods, and (5) Lighting. Each of the 41 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrician apprentice. Illustrations are photographs or line drawings. The bibliography contains six textbooks and three references. Related study guides are VT 005 137, VT 005 138, and VT 005 140. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 140

Electrical Wiring. Part 4, Workbook.

Alerich, Walter N.
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 65
MF AVAILABLE IN VT-ERIC SET. 115p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRICIANS,
*APPRENTICESHIPS,

This study guide was planned by state educational advisory committees for use by electrician apprentices in the related technical phase of their training. Major units are (1) A-C Apparatus, (2) Manual and Electromagnetic Controllers, (3) Transformers, and (4) Basic Industrial Electronics. Each of the 34 topics in these units provides related information or a text assignment and questions covering this information. This material is designed for 144 hours of instruction by a qualified journeyman. The student should be an indentured electrician apprentice. Illustrations are photographs or line drawings. The bibliography lists six texts and one reference. Related study guides are VT 005 137, VT 005 138, and VT 005 139. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 141

Meatcutting. Part I, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
 Pub Date - 63
 MF AVAILABLE IN VT-ERIC SET. 151p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MEAT CUTTERS,
 *MEAT, *APPRENTICESHIPS,

This study guide was developed by an instructional materials laboratory with assistance from local instructors and an advisory committee for use in the related instruction portion of the apprentice meatcutter training program. Major units are (1) The Apprentice Meatcutter, (2) Mathematics, (3) Meatcutting Tools and Equipment, (4) Meat from Farm to Table, (5) Classes and Inspection of Meat, and (6) Meat Salesmanship. Each of the 33 topics in the units provides related information or a text assignment and study questions. This material is for use by indentured apprentices in 144 hours of instruction under a qualified journeyman. Illustrations are photographs and line drawings. A glossary, a bibliography of three textbooks and nine references, and answers to the mathematics unit questions are included. (See also VT 005 142). This document is available for \$2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 142

Meatcutting. Part 2, Workbook.

California State Dep of Educ, Sacramento. Bur of Ind Educ
 Pub Date - 64
 MF AVAILABLE IN VT-ERIC SET. 129p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MEAT CUTTERS,
 *MEAT, *APPRENTICESHIPS,

This study guide was planned by a state advisory committee for use in the related instruction portion of the apprentice meatcutter training program. Major units are (1) Breaking and Cutting Meat, (2) Meat Packaging and Handling, (3) Market Operation, and (4) Workmen's Legal Rights and Benefits. Each of the 23 topics in these units gives related information or a text assignment and study questions. The material is for use by indentured apprentices in 144

hours of instruction under a qualified journeyman. Illustrations are photographs and line drawings. A bibliography lists three textbooks and four references. (See also VT 005 141). This document is available for \$2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (EM)

VT 005 180

Course in Cabinetmaking and Millwork, A Workbook for Apprentices. Part I.

Bryson, Robert * and others
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 62
MF AVAILABLE IN VT-ERIC SET. 123p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *CABINETMAKERS, CABINETMAKING, *APPRENTICESHIPS,

This guide is for student use in studying related technical information in the first year of the cabinetmaker apprentice training program. The material was planned, developed, and revised in cooperation with the State Educational Advisory Committee for the Cabinetmaking and Millwork Trade. Units of instruction are (1) The Apprentice Cabinetmaker and His Trade, (2) Mathematics--Arithmetic, (3) Materials, (4) Hand Tools, (5) Power Tools, (6) Joints, and (7) Elementary Blueprint Reading. Each unit is divided into study topics which contain an introduction, related information, an assignment from reference materials, and a set of checkup questions for student self-evaluation. A record of student progress may be kept in the study guide index. Photographic and line-drawing illustrations are included. The study of this 144-hour course by indentured apprentices on a group or individual basis is to be directed by a qualified journeyman of the trade. A list of supplementary instructional materials includes eight books and booklets recommended for each apprentice and 12 books and leaflets recommended for the classroom library. Testbooks and final examinations for the course are available to the instructor. "Cabinetmaking and Millwork," Part 2 (VT 002 991) and Part 3 (VT 002 785) are also available. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 005 181

Machine Shop. Part 1, Workbook.

Biebesheimer, Howard * and others
California State Dep of Educ, Sacramento. Bur of Ind Educ
Pub Date - 64
MF AVAILABLE IN VT-ERIC SET. 166p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MACHINISTS, *APPRENTICESHIPS,

This study guide is for student use in the related technical phase of the first year of machinist apprentice training programs. It was developed by a statewide educational advisory committee of labor and management representatives. The units are (1) The Apprentice

Machinist and His Trade, (2) Mathematics as Applied to the Machinist Trade, (3) Blueprint Reading, Sketching, and Drawing, (4) Benchwork, and (5) Drill Press Work. Topics within each unit provide references, an introduction, related information, and checkup questions. Examinations from the course textbook are to be given after each topic and each unit are completed. The material is to be used by individual students under teacher supervision for 144 hours or 1 year. The teacher must be a qualified journeyman from the trade, and the students must be indentured apprentices. The document is illustrated with line drawings and photographs. Lists of recommended books for each apprentice, classroom library books, slidefilms, and motion picture films are included. "Machine Shop Part 2, Workbook" is available as VT 005 182. This document is available for \$2.00 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 005 182

Machine Shop, Part 2, Workbook.

Erickson, W.A.

California State Dep of Educ, Sacramento. Bur of Ind Educ

Pub Date - 67

MF AVAILABLE IN VT-ERIC SET. 130p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *MACHINISTS, *APPRENTICESHIPS,

This second-year study guide is for student use in the related technical phase of machinist apprentice training programs. It was developed by a statewide educational advisory committee of labor and management representatives. The units are (1) Shop Mathematics, (2) Blueprint Reading, Sketching, and Drawing, (3) Shaper Work and Vertical Mill Applications, (4) Lathe Work, and (5) Materials and Machining Practices. Topics within each unit provide the assignment, study questions, and, in some cases, problems. Examinations from the course textbook are to be given after each topic and each unit are completed. The material is to be used by individual students under teacher supervision for 144 hours or 1 year. The teacher must be a qualified journeyman from the trade, and the students must be indentured apprentices. The document is illustrated with line drawings and photographs. Lists of required books for each apprentice, recommended classroom library books, slidefilms, and motion picture films are included. See also VT 005 181. This document is available for \$2.25 from Bureau of Industrial Education, California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. (HC)

VT 005 259

Supervised Study Guide for Building Maintenance Man.

Enderby, David R.

Texas Univ., Austin. Dept. of Industrial Education.

Texas Education Agency, Austin. Industrial Education Div.

Pub Date - Aug67

DOCUMENT NOT AVAILABLE FROM EDRS. 168p.

*STUDY GUIDES, *TRADE AND INDUSTRIAL EDUCATION, *BUILDING MAINTENANCE MEN, GRADE 11, GRADE 12, *COOPERATIVE EDUCATION,

This study guide was developed by an instructional materials specialist and an advisory committee for use by students in cooperative education programs for building maintenance men. Major units are (1) Safety, (2) Mathematics, (3) Construction Details, (4) Layout, (5) Hand Tools, (6) Power Tools, (7) Abrasives, (8) Fasteners, (9) Materials and Materials Handling, (10) Interior Maintenance, (11) Exterior Maintenance, (12) Paints and Finishes, (13) Electrical Maintenance, and (14) Mechanical Maintenance. Assignment sheets for each of the 75 lessons provide an objective, introductory information, references, and study questions. The material was planned for 360 hours of directed study for part-time secondary or post-secondary students. The teacher should be a qualified teacher-coordinator. A job and class progress record and information sheets are included. VT 005 257 contains unit tests and VT 005 258 contains answers to assignments in this guide and to the unit tests. This document is available with the Unit Tests for \$5.35 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (EM)

VT 005 459

The Mechanical Design Technology Course in the Madison Vocational, Technical, and Adult Schools, Madison, Wisconsin, 1965.

Gilsdorf, John R. * and others
 Madison Vocational, Tech., and Adult Schools, Wis.
 Pub Date - 65
 MF AVAILABLE IN VT-ERIC SET. 178p.

*CURRICULUM GUIDES, CURRICULUM, *TRADE AND INDUSTRIAL EDUCATION,
 *MECHANICAL DESIGN TECHNICIANS, TECHNICAL EDUCATION,

This guide is for administrator use in planning a curriculum for an associate degree technical education program in mechanical design technology in a community college or technical institute. It was developed by teachers and an advisory committee of the Madison Vocational, Technical and Adult Schools and has been tested over a 3-year period and reevaluated by the Wisconsin Board of Vocational, Technical, and Adult Education, The American Institute of Design and Drafting, and the North Central Accrediting Association. The purpose of the program is to prepare students for employment as technicians in design, drafting, and industrial technology. First year courses are Communication Skill, Technical Mathematics, Mathematics, Technical Science, Technical Drawing, American Institutions, Machine Shop Operations, Industrial Safety, Drafting, Human Relations, Mechanics and Welding. Second year courses are Mathematics, Drafting, Tool and Die Design, Strength of Materials, Geometry, Metallurgy, Manufacturing Processes and Materials, Machine Design, Hydraulics, and Industrial Electronics. Elective courses are Optical Tooling, Graphic Reproduction, Sheet Metal Drafting, Basic Foundry Practices, Electricity, and Record Keeping. The courses are outlined into units and subtopics and include references, texts, laboratory and classroom hours, and objectives. The program is designed for 2 school years of 37 weeks each with 28 to 32 class attendance hours per week. The teachers must be qualified and certified in the various curriculum areas. The students must be high school graduates or equivalent with a mathematics or science background. (HC)

VT 005 507 ED (See Dec 68 RIE)
Electrical and Electronic Industrial Control, Computerized Control
 Series, Logical Fundamentals of Digital Computers. Unit 10A.

Sutton, Mack C.
 Texas Univ., Austin. Dept. of Industrial Education
 Texas Education Agency, Austin. Industrial Education Div.
 Pub Date - Nov67
 DOCUMENT NOT AVAILABLE FROM EDRS. 343p.

*PROGRAMED TEXTS, *TRADE AND INDUSTRIAL EDUCATION, *ELECTRONIC
 TECHNICIANS, *DIGITAL COMPUTERS, PROGRAMED INSTRUCTION,

This self-instructional programed text is for student use in studying the electronic digital computer control system. It was developed by an instructional materials specialist and advisers and tested through student use. The content objectives are to establish concepts and understanding of digital computer techniques, control elements, static and dynamic information storage systems, and parallel arithmetic units. The units are--(1) The Arithmetic and Logic of Digital Computers, (2) Logical Fundamentals of the Control Elements, (3) Binary Information Storage Systems, and (4) The Parallel Arithmetic Unit. The first sheet of each section lists the subjects, states the objectives, and directs the student in using the material in that section. Exercises are given under each subject heading, and answers to the exercises are located at the end of each section. Although the self-contained text is designed as self-instructional programed material for student use for an indefinite period, it can be adapted for classroom use by supplementing it with additional questions, tests, and demonstrations. The students should be electrical-electronic technicians in industry and have an understanding of electrical and magnetic fundamentals. Line drawing illustrations and fold-out panel diagrams are included. This unit is part of a series developed for an electrical-electronic program. Assignments and instructor's guides for the other units are VT 000 284-VT 000 287, and VT 000 308-VT 000 321. This document is available for \$7.00 from Industrial Education Department, Division of Extension, The University of Texas, Austin, Texas 78712. (HC)

GENERAL VOCATIONAL AND
TECHNICAL EDUCATION
SECTION

VT 001 518 ED 018 587
 Films on Guidance, 1964-65.

Connecticut State Dept. of Education, Hartford.

Pub Date - 65
 EDRS PRICE MF-\$0.25 HC-\$2.28 55p.

*ANNOTATED BIBLIOGRAPHIES, *SOUND FILMS, *EDUCATIONAL GUIDANCE,
 *OCCUPATIONAL GUIDANCE,

Over 400 16mm sound films for use in helping students relate their own interests and abilities to educational and vocational planning are listed alphabetically under the topics--personal and social adjustment, adolescence, counselor education, etiquette, exceptional child, family life, educational guidance, personal guidance, vocational guidance, juvenile delinquency, use of libraries, marriage, pre-induction orientation for military service, clerical and sales occupations, professional occupations, skilled occupations, unskilled occupations, parent-child relations, prejudice, social skills, student government, study skills, teacher education, and testing. An alphabetical listing of the films gives for each--producer or depositor, suggested grade level, running time, black and white or color, date of production, and a brief description. (PS)

VT 001 816
 Curriculum Materials for Trade and Industrial Education, 1963, A
 Listing of Materials Available from Public Education Agencies.
 Vocational Division Bulletin No. 303, Trade and Industrial
 Education Series No. 76.

Strong, Merle E.
 Office of Education, Washington, D.C.
 OE-84023A
 Pub Date - 64
 MF AVAILABLE IN VT-ERIC SET. 94p.

*INSTRUCTIONAL MATERIALS, STATE AGENCIES, *ANNOTATED
 BIBLIOGRAPHIES, *TRADE AND INDUSTRIAL EDUCATION, DIRECTORIES,

This publication is designed to assist trade and industrial educators and industrial training personnel through the listing and annotation of curriculum materials developed and made available by public education agencies. Course outlines, workbooks, job sheets, study guides, test books, and other curriculum materials are listed for 77 subject matter areas. The materials are listed alphabetically by state within each subject matter classification. Each listing gives the title, type of document, publication date, page numbers, price, type of reproduction, and an annotation to clarify the nature and content of the material. Curriculum materials developed by the Division of Vocational and Technical Education, U.S. Office of Education are also listed. Instructions for ordering and agency addresses are given for each state. A directory of state liaison persons who provide a channel of communication between the U.S. Office of Education and the state, between the several states, and between the state and local school districts is given. These persons are responsible for gathering and disseminating information relating to curriculum development activities in the respective states. This document is available as FS5.284--84023A

for 35 cents from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (HC)

VT 002 349

Merchandising Your Job Talents.

Bureau of Empl. Sec. (Dept. of Labor), Washington, D.C.

Pub Date - 65

MF AVAILABLE IN VT-ERIC SET. 22p.

*OCCUPATIONAL INFORMATION, *JOB APPLICATION, *EMPLOYMENT INTERVIEWS, OCCUPATIONAL TESTS,

This booklet is for teacher and student use in an instructional unit which orients junior and high school students for the world of work. Basic principles and techniques for obtaining a job are described. Finding the right job requires planned, systematic effort and one's future depends not only on his qualifications but also on the ability to market these qualities. Topics discussed are (1) Self-Appraisal, (2) Preparing a Resume, (3) Letter of Application, (4) Sources of Information, (5) Planning Your Time, (6) Job Interview, (7) Testing, and (8) After the Interviews. The student is directed to consult his State Employment Service for job referral, assistance in preparing a resume, labor market information, career consultation, retraining opportunities, and group training in job finding. An interview record sheet is included. This document is available as L7.25/3--J57 for 25 cents from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (FP)

VT 004 020

Aids to Educators from General Motors.

General Motors Corp., Detroit, Mich.

Pub Date - 66

MF AVAILABLE IN VT-ERIC SET. 29p.

*AUTO MECHANICS, VOCATIONAL EDUCATION, OCCUPATIONAL GUIDANCE, *DRIVER EDUCATION, *MOTOR VEHICLES, *INSTRUCTIONAL MATERIALS, *BIBLIOGRAPHIES,

Seventy-four service manuals, charts, booklets, films, and kits which might be suitable in various educational programs are listed under the general headings: (1) Science, Engineering, and Vocational, (2) Social Studies and Economics, (3) Vocational Guidance, and (4) Driver and Safety Education. About 200 booklets, manuals, catalogs, charts, films, kits, and displays produced by the corporation's divisions are listed by division. An index of the divisions, and information concerning the availability of automotive components and other educational programs are included. Single copies of most listed items are available free from the Public Relations Staff, General Motors Corporation, Detroit, Michigan 48202. Information concerning quantity price and availability is available from the same source. (EM)

VT 004 030

Your Future Through Technical Education. (Sound Film Strip).

Ohio State Dep of Educ, Columbus. Trade and Ind Educ Serv
 Pub Date - 66
 DOCUMENT NOT AVAILABLE FROM EDRS. 1 Record, 1 Filmstrip

*FILMSTRIPS, *PHONOGRAPH RECORDS, *TECHNICAL EDUCATION, POST
 SECONDARY EDUCATION, *OCCUPATIONAL CHOICE, OCCUPATIONAL GUIDANCE,
 *EDUCATIONAL GUIDANCE,

This sound filmstrip was developed by professional vocational educators and guidance personnel in cooperation with photographic consultants. It is for use by administrators, vocational supervisors, and guidance personnel in counseling secondary students relative to post-secondary technical education. The set consists of one color filmstrip which has 69 frames and a long-play record which explains it. The record has the same script on both sides, but one side emits an audible signal for manually advancing the filmstrip while the other emits an inaudible signal for automatic filmstrip projectors. Answers are provided for such questions as (1) What is success, (2) Where does the technician fit into the occupational scheme, (3) Where do technicians work, (4) How much student effort is involved in technical education, and (5) How can a person enroll in technical education programs. The record and filmstrip are available for \$7.60 plus 75 cents for handling, or a magnetic tape and the filmstrip are available for \$15.20 plus 75 cents for handling from Ohio Trade and Industrial Education Service, Instructional Materials Laboratory, 1885 Neil Avenue, Columbus, Ohio 43210. (EM)

VT 004 834

Pre-Technical Mathematics, Course Outline.

Williams, G.K.
 North Carolina State Board of Ed, Raleigh. Curriculum Lab.
 Pub Date - Jul66
 MF AVAILABLE IN VT-ERIC SET. 10p.

*CURRICULUM GUIDES, *MATHEMATICS, PRETECHNOLOGY PROGRAMS,

Teachers may use this course outline in teaching pretechnical mathematics in vocational-technical schools. It was prepared by an individual teacher. Major units are (1) review of whole numbers, (2) fractions, (3) power and roots, (4) operations with mixed numbers, (5) common fractions, (6) mensuration, (7) introductory algebra, (8) linear equations, (9) factoring, and (10) algebraic operations. The suggested time allotment is 55 hours. Teachers should be qualified mathematics instructors. The text is "Industrial Mathematics" (Prentice-Hall, 1959). Three references are listed. (WB)

OTHER
RESOURCES
SECTION

VT 005 760 ED 020 442

Microfiche Collection of Documents Reported in Abstracts of Instructional Materials in Vocational and Technical Education, Summer 1968.

Ohio State Univ., Columbus. Center for Voc. Educ.

Pub Date - 68

EDRS PRICE MF-\$53.00 HC NOT AVAILABLE FROM EDRS. 14,813p.

*INSTRUCTIONAL MATERIALS, *VOCATIONAL EDUCATION, *TECHNICAL EDUCATION, BUSINESS EDUCATION, AGRICULTURAL EDUCATION, DISTRIBUTIVE EDUCATION, HEALTH OCCUPATIONS EDUCATION, HOME ECONOMICS EDUCATION, INDUSTRIAL ARTS, TRADE AND INDUSTRIAL EDUCATION, INDEXES (LOCATORS), CLEARINGHOUSES,

Documents announced in the Summer 1968 issue (VT 005 759) of "Abstracts of Instructional Materials in Vocational and Technical Education" (AIM), with minor exceptions, are included in this microfiche set. The microfiche set is arranged in the following sequence: (1) a Vocational Technical (VT) number index to documents in the microfiche collection, (2) a VT number list of 12 documents which were listed in AIM but are not in the microfiche collection, with a list of addresses from which these documents are available, (3) the author and subject index from AIM, and (4) the full text of documents listed in the VT number index. The texts are filmed continuously in VT number sequence. (BS)

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